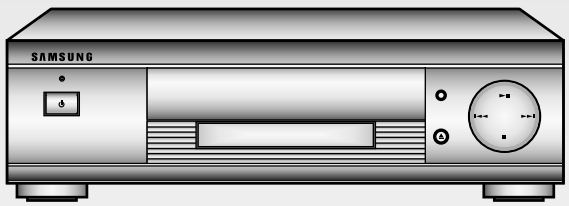
# DIGITAL VIDEO DISC PLAYER

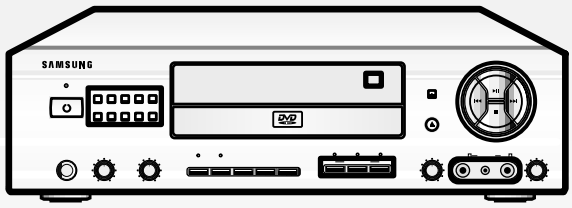
## DVD858V
## DVD878KV

# SERVICE Manual

**DIGITAL VIDEO DISC PLAYER**




DVD-858V




DVD-878KV

**CONTENTS**

1. Precautions

2. Reference Information

3. Product Specifications and

4. Disassembly and Reassembly

5. Troubleshooting

6. Exploded View and Parts List

7. Electrical Parts List

8. Block Diagram

9. PCB Diagrams

10. Wiring Diagram

11. Schematic Diagrams

© Samsung Electronics Co., Ltd. MAY. 1997 AH68-20165A

# 1. Precautions

1. Be sure that all of the built-in protective devices are replaced. Restore any missing protective shields.

2. When reinstalling the chassis and its assemblies, be sure to restore all pretective devices, including : control knobs and compartment covers.

3. Make sure that there are no cabinet openings through which people--particularly children --might insert fingers and contact dangerous voltages. Such openings include the spacing between the picture tube and the cabinet mask, excessively wide cabinet ventilation slots, and improperly fitted back covers.

   If the measured resistance is less than 1.0 megohm or greater than 5.2 megohms, an abnormality exists that must be corrected before the unit is returned to the customer.

4. Leakage Current Hot Check (See Fig. 1) :
   Warning : Do not use an isolation transformer during this test. Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI C101.1, *Leakage Current for Appliances*), and Underwriters Laboratories (*UL Publication UL1410, 59.7*).

5. With the unit completely reassembled, plug the AC line cord directly the power outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known erath ground (metal water pipe, conduit, etc.) and all exposed metal parts, including : antennas, handle brackets, metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.

6. X-ray Limits :
   The picture tube is designed to prohibit X-ray emissions. To ensure continued X-ray protection, replace the picture tube only with one that is the same type as the original.

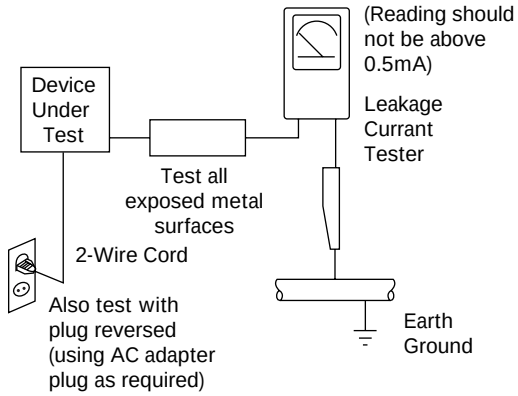

(Reading should not be above 0.5mA)
Device Under Test
Leakage Currant Tester
Test all exposed metal surfaces
2-Wire Cord
Also test with plug reversed (using AC adapter plug as required)
Earth Ground

Fig. 1 AC Leakage Test

7. Antenna Cold Check :
   With the unit's AC plug disconnected from the AC source, connect an electrical jumper across the two AC prongs. Connect one lead of the ohmmeter to an AC prong.
   Connect the other lead to the coaxial connector.

8. High Voltage Limit :
   High voltage must be measured each time servicing is done on the B+, horizontal deflection or high voltage circuits.

   Heed the high voltage limits. These include the *X-ray protection Specifications Label*, and the *Product Safety and X-ray* Warning Note on the service data schematic.

9. Some semiconductor ("solid state") devices are easily damaged by static electricity.
   Such components are called Electrostatically Sensitive Devices (ESDs); examples include integrated circuits and some field-effect transistors. The following techniques will reduce the occurrence of component damage caused by static electricity.

10. Immediately before handling sny semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging Wrist-strap device. (Be sure to remove it prior to applying power--this is an electric shock precaution.)

11. High voltage is maintained within specified limits by close-tolerance, safety-related components and adjustments. If the high voltage exceeds the specified limits, check each of the special components.

12. Design Alteration Warning :
    Never alter or add to the mechanical or electrical design of this unit. Example : Do not add auxiliary audio or video connectors. Such alterations might create a safety hazard. Also, any design changes or additions will void the manufacturer's warranty.

13. Hot Chassis Warning :
    Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord. If an isolation transformer is not used, these units may be safely serviced only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC source.

    To confirm that the AC power plug is inserted correctly, do the following : Using an AC voltmeter, measure the voltage between the chassis and a known earth ground. If the reading is greater than 1.0V, remove the AC power plug, reverse its polarity and reinsert. Re-measure the voltage between the chassis and ground.

14. Some TV chassis are designed to operate with 85 volts AC between chassis and ground, *regardless of the AC plug polarity*. These units can be safely serviced *only* if an isolation transformer inserted between the receiver and the power source.

15. Never defeat any of the B+ voltage interlocks. Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.

16. Always connect a test instrument's ground lead to the instrument chassis ground *before* connecting the positive lead; always remove the instrument's ground lead last.

17. Observe the original lead dress, especially near the following areas : Antenna wiring, sharp edges, and especially the AC and high voltage power supplies. Always inspect for pinched, out-of-place, or frayed wiring. Do not change the spacing between components and the printed circuit board. Check the AC power cord for damage. Make sure that leads and components do not touch thermally hot parts.

18. Picture Tube Implosion Warning :
    The picture tube in this receiver employs "integral implosion" protection. To ensure continued implosion protection, make sure that the replacement picture tube is the same as the original.

19. Do not remove, install or handle the picture tube without first putting on shatterproof goggles equipped with side shields. Never handle the picture tube by its neck. Some "in-line" picture tubes are equipped with a permanently attached deflection yoke; do not try to remove such "permanently attached" yokes from the picture tube.

20. Product Safety Notice :
    Some electrical and mechanical parts have special safety-related characteristics which might not be obvious from visual inspection. These safety features and the protection they give might be lost if the replacement component differs from the original--even if the replacement is rated for higher voltage, wattage, etc.

    Components that are critical for safety are indicated in the circuit diagram by shading, ( ⚠ or ⚠ ).
    Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications. A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

21. Cautions for handling Pick-up
    Body grounding (hand) : Be sure to wear a wrist strip with one side grounded. (Impedance : Below $10^{-8}$ Ω )
    Work table grounding : Put A grounded electric conductor such as copper plate on tne work table.

    Caution: Do not let clothing touch the product (to prevent possible damage from static electricty).

    FPC operation : Handle the FPC carefully because it is easily damaged.

## 1-2 Pick-up disassembly and ressembly

### 1-2-1 Disassembly

1) Remove the power cable.
2) Switch LD SW3 on deck PCB to 'S' before remo ing the FPC ( inserted into Main PCB CN1. See Fig 1-2)
3) Disassemble the deck.
4) Disassemble the deck PCB.
5) Replace the Pick-up.

### 1-2-2 Assembly

1) Replace the Pick-up.
2) Assemble the deck PCB.
3) Reassemble the deck.
4) Switch LD SW3 on deck PCB to 'O' and insert FPC into Main PCB CN1 (See Fig 1-2).

**Note** : If the assembly and disassembly are not done in correct sequence, the Pick-up may be damaged.

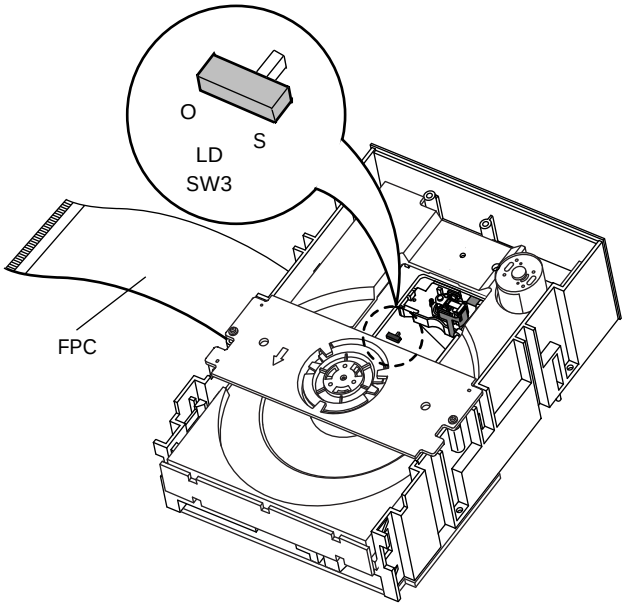



Fig. 1-2

# MEMO

# 3. Product Specifications

The specifications and design may be changed without notice. The weight and dimensions are approximate.

| MODEL | | DVD858V | DVD878KV |
|---|---|---|---|
| GENERAL | Power Requirements | Free Voltage, 50/60Hz | Free Voltage, 50/60Hz |
| | Power Consumption | 23W | 23W |
| | Weight | **4.4Kg** | **6.6Kg** |
| | Set Size | (W)420mm x (D)339mm x (H)120mm | (W)420mm x (D)339mm x (H)120mm |
| | Operating Temperature Range | + 5 °C ~ 35 °C | + 5 °C ~ 35 °C |
| | Operating Humidity Range | 50% ~ 95% | 50% ~ 95% |
| DISC | DVD (DIGITAL VERSATILE DISC | Reading Speed ; 1.2 ~ 1.4mm/sec | Reading Speed ; 1.2 ~ 1.4mm/sec |
| | | Maximum Play Time ; 135 minutes | Maximum Play Time ; 135 minutes |
| | CD : 12cm (COMPACT DISC) | Reading Speed ; 1.2 ~ 1.4mm/sec | Reading Speed ; 1.2 ~ 1.4mm/sec |
| | | Maximum Play Time ; 74 minutes | Maximum Play Time ; 74 minutes |
| | CD : 8cm (COMPACT DISC) | Reading Speed ; 1.2 ~ 1.4mm/sec | Reading Speed ; 1.2 ~ 1.4mm/sec |
| | | Maximum Play Time ; 74 minutes | Maximum Play Time ; 74 minutes |
| | VIDEO - CD 12cm | Reading Speed ; 1.2 ~ 1.4m/sec | Reading Speed ; 1.2 ~ 1.4m/sec |
| | | Maximum Play Time ; 74 minutes(Video + Audio) | Maximum Play Time ; 74 minutes(Video + Audio) |
| VIDEO OUTPUT | RCA JACK | 2 channel ; 1.0Vp-p | 2 channel ; 1.0Vp-p |
| | | R(Red) ; 0.714Vp-p | R(Red) ; 0.714Vp-p |
| | | G(Green) ; 0.714Vp-p | G(Green) ; 0.714Vp-p |
| | | B(Blue) ; 0.714Vp-p | B(Blue) ; 0.714Vp-p |
| | | S(Sync) ; 4.0Vp-p | S(Sync) ; 4.0Vp-p |
| | SUPER VIDEO | Luminance Signal ;1Vp-p (75Ω load) | Luminance Signal ;1Vp-p (75Ω load) |
| | | Color Signal ; 0.286Vp-p (75Ω load) | Color Signal ; 0.286Vp-p (75Ω load) |
| AUDIO OUTPUT | 2 channel | L(1/L), R(2/R) | L(1/L), R(2/R) |
| | 5 channel | F/L, F/R, R/L, R/R, C/T, S/W | F/L, F/R, R/L, R/R, C/T, S/W |
| | Output Level | Analog ; 2Vrms(1KHz) | Analog ; 2Vrms(1KHz) |
| | | Digital ; 5Vp-p | Digital ; 5Vp-p |
| | Digital Frequency Response | *** Frequency Response ; 4Hz ~20KHz, S/M Ratio : 105dB** | *** Frequency Response ; 4Hz ~20KHz, S/M Ratio : 95dB** |
| | | *** Dynamic Range ; 95dB** | *** Dynamic Range ; 90dB** |
| | | *** Total Harmonic Distortion 0,005%** | *** Total Harmonic Distortion 0,02%** |

# MEMO

# 4. Disassembly and Reassembly

## 4-1 DVD878KV Exterior and PCB Disassembly

### 4-1-1 Door-tray

1. Supply power and open Tray ❶.
2. Disassemble the door-tray ❷ in direction of arrow.
3. Close Tray ❶ and power off.

**Note** : If Tray ❶ doesn't open, insert a clip ❸ into the hole (as shown in detailed drawing), and open Tray ❶ manually.

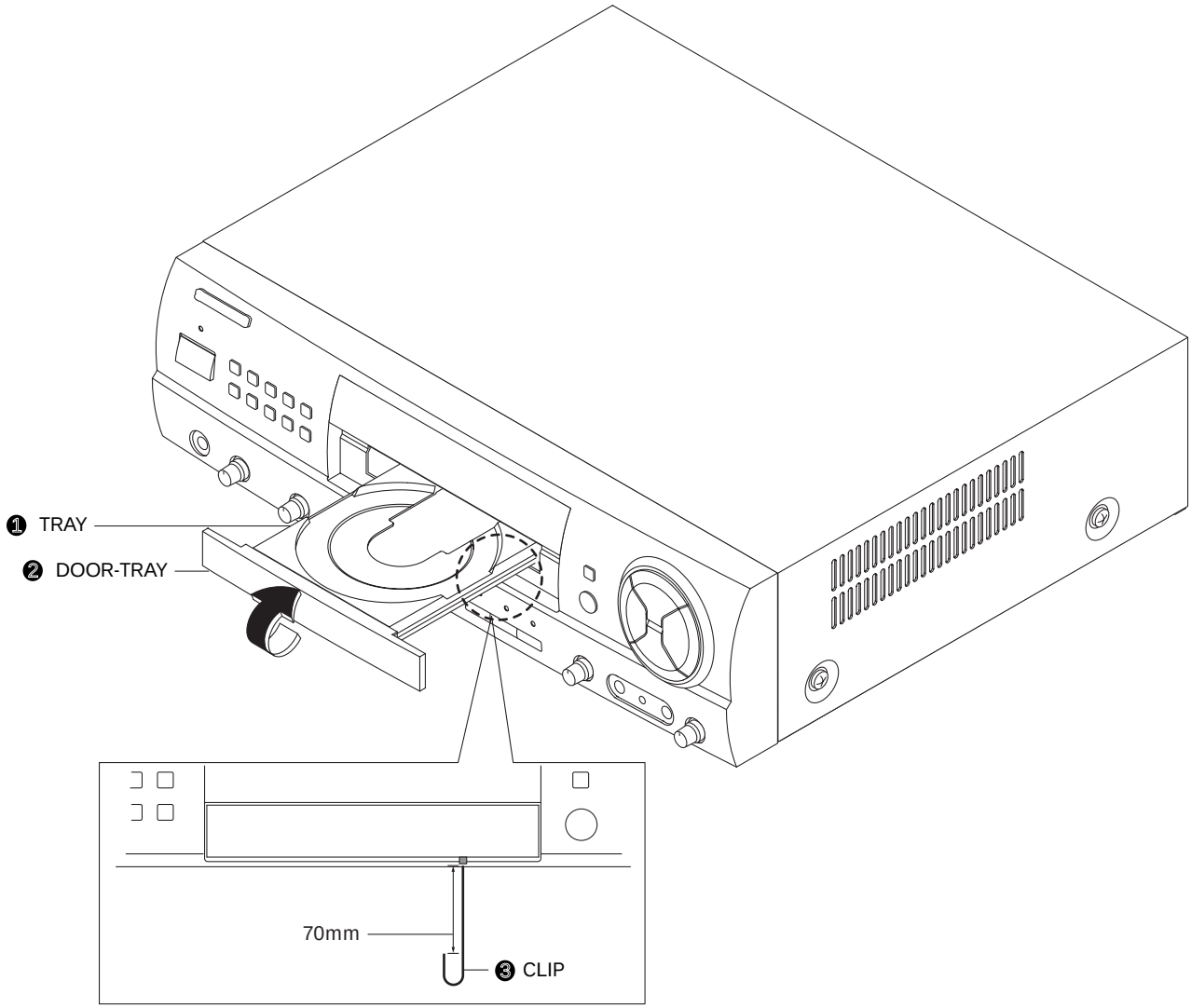



Fig. 4-1

## 4-1-2 Top cabinet

1. Remove 3 screws ❶ on the back panel.
2. Remove 4 screws ❷, ❸ on the left and right side.
3. Lift up the top cabinet in direction of arrow.

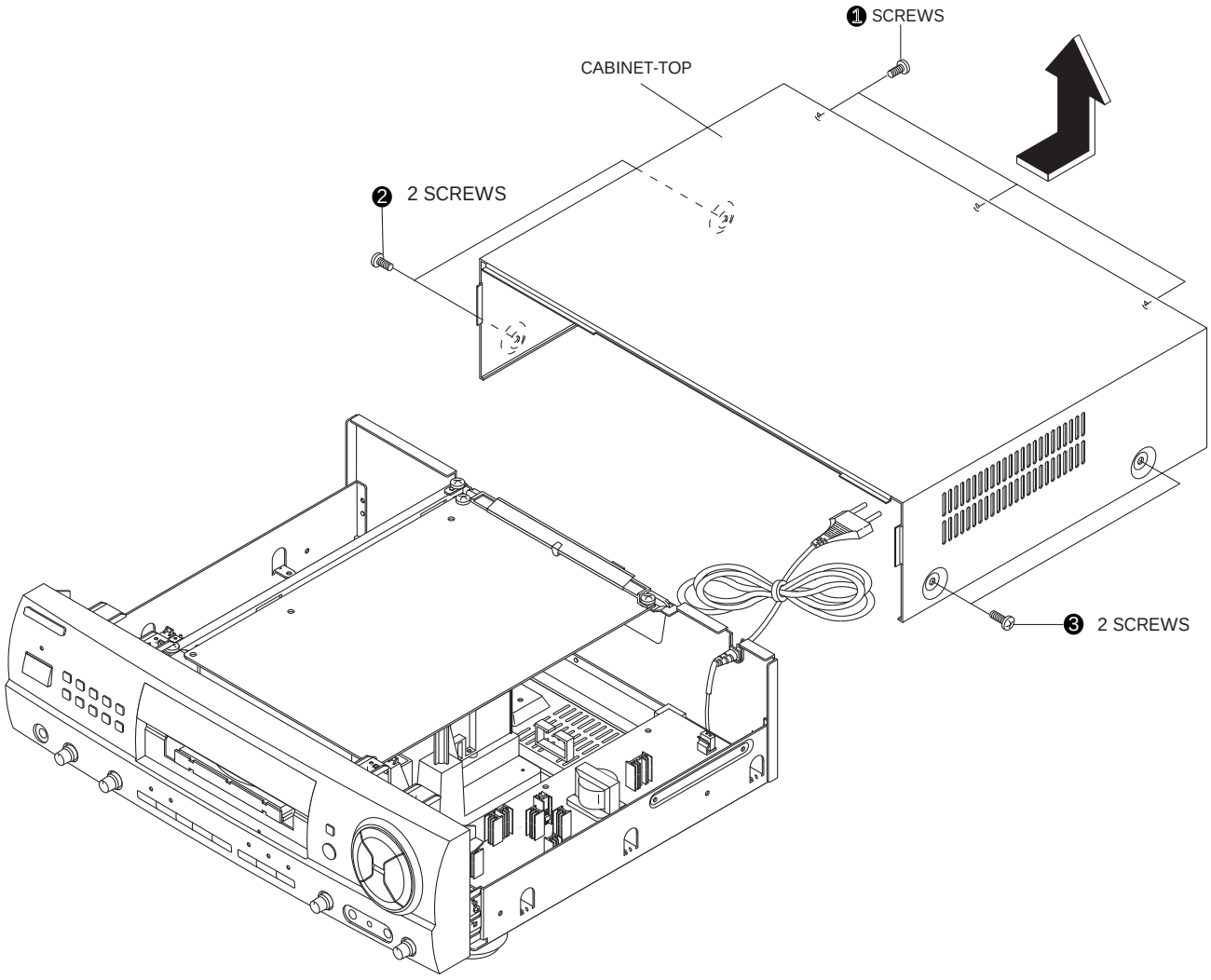



Fig. 4-2

## 4-1-3 Panel-Front, PCB-Front

1. Remove 4 knob-volumes ❶.
2. Remove 2 screws ❷, ❸ on the left and right side of panel-front.
3. Remove 2 screws ❹ on the top of panel-front.
4. Remove 8 screws ❺ to fix PCB-front and disassemble PCB-front.

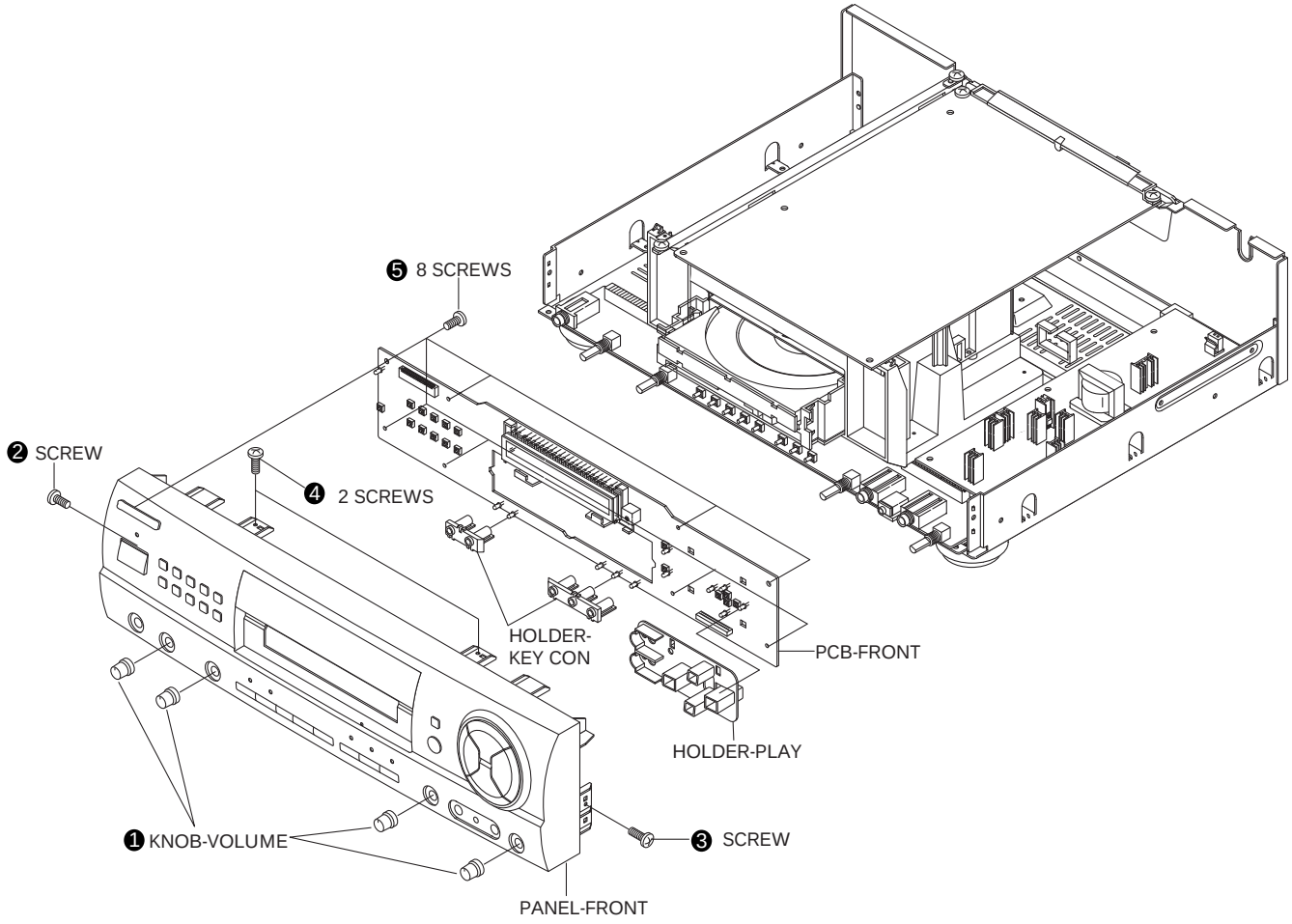



Fig. 4-3

## 4-1-4 PCB-MAIN, PCB-KARAOKE, PCB-SMPS

1. Remove 4 screws to fix PCB-MAIN and disconnect the connector connected DECK, PCB-SMPS by lifting it up towards arrow “A”.
2. Remove 2 Holder-PCB ❷ inserted in PCB-MAIN.
3. Remove 4 screws ❹ and then remove cover-Rear ❺ and Ground-Rear ❻.
4. Remove 1 screw ❸ and then remove BRKT-PCB ass’y.
5. Remove 5 screws ❼ and 1 spacer-PCB ❽ and then lift PCB-SMPS up.
6. Remove 2 screws ❾ and then remove PCB-KARAOKE in the direction of arrow “B”.

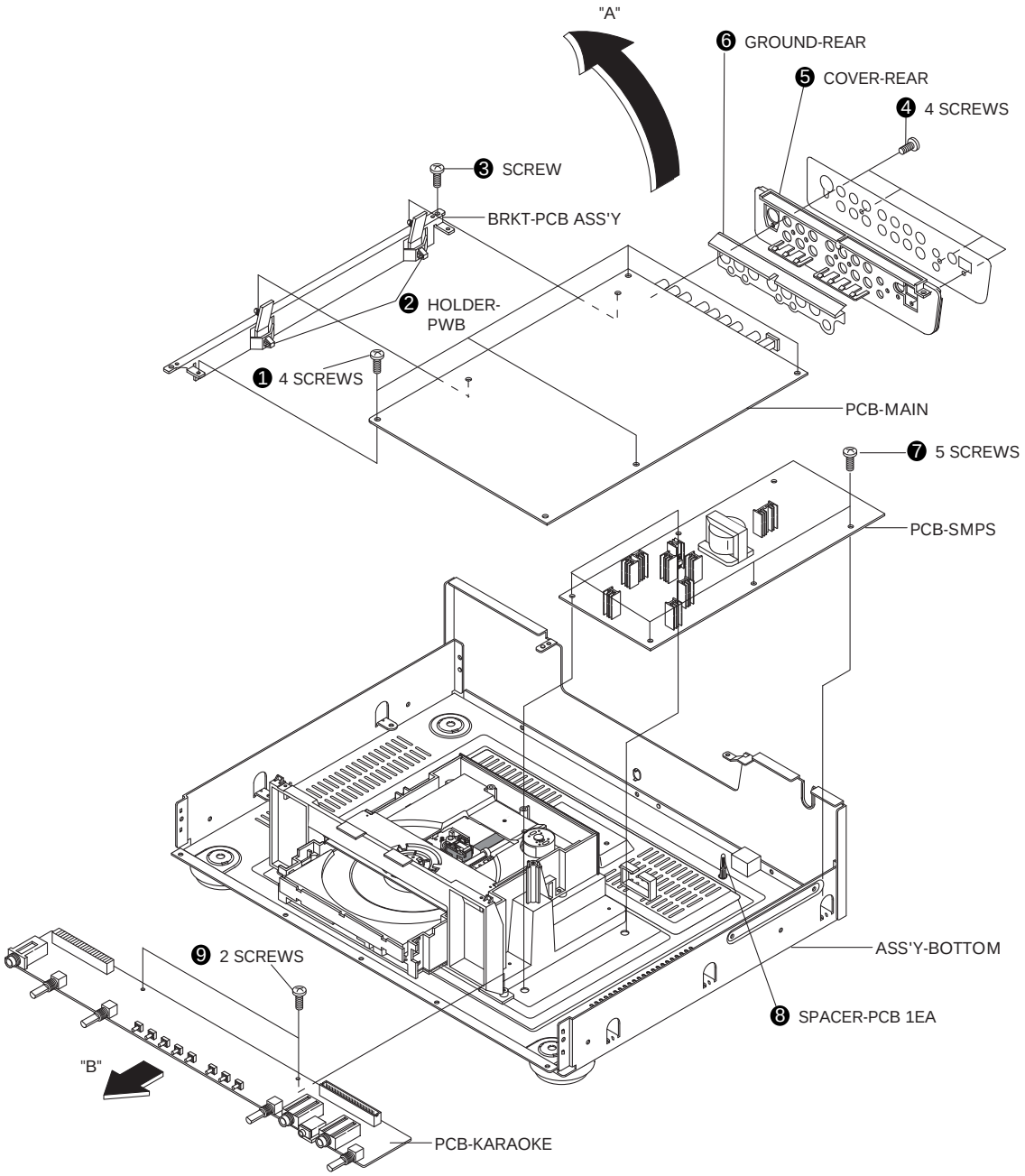



Fig. 4-4

## 4-1-5 Deck, Frame-chassis

1. Remove 4 screws ❶ from the deck and lift it up.
2. Remove 4 screws ❷ from the frame-chassis and lift it up.

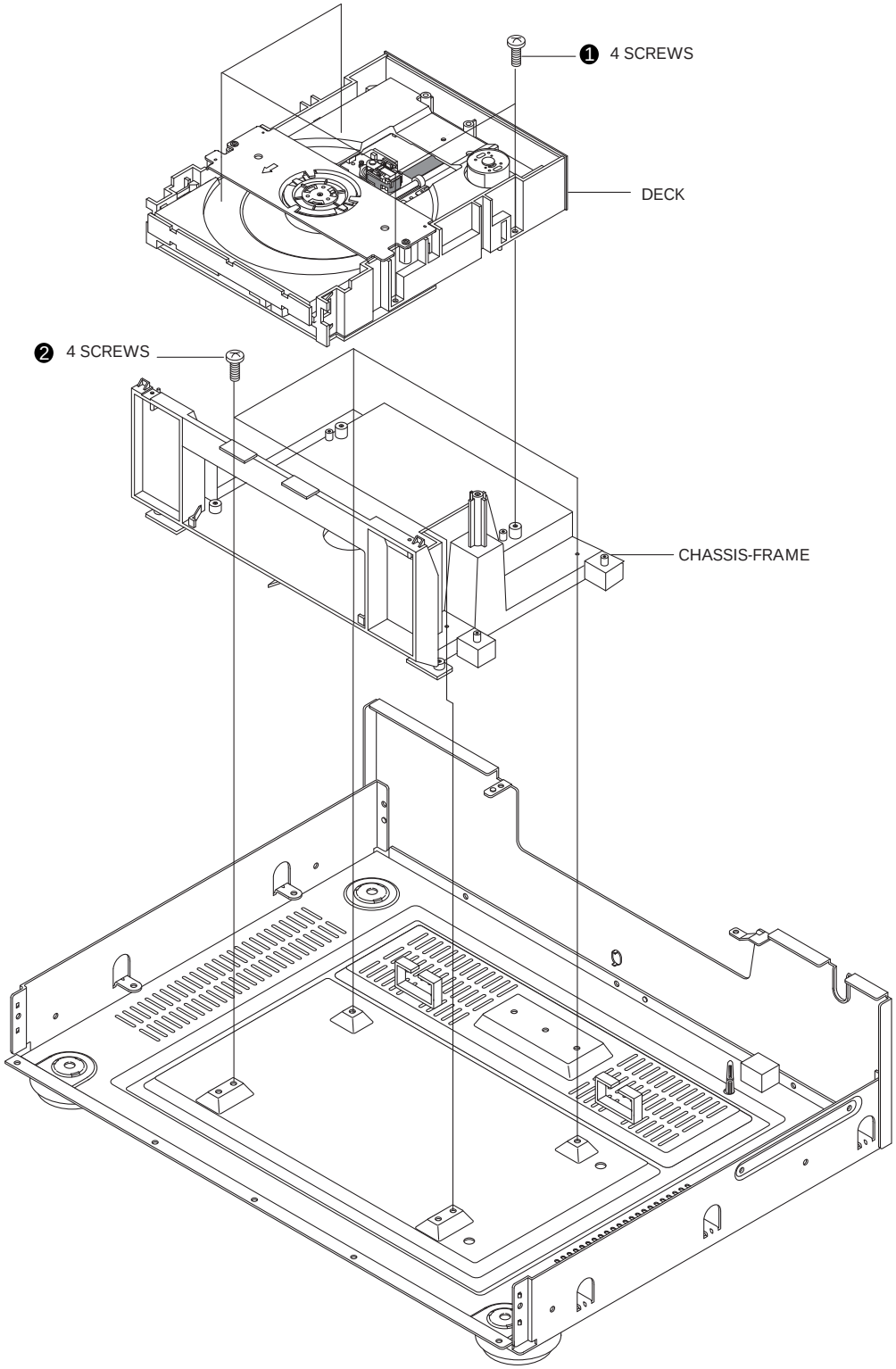



Fig. 4-5

# 4-2 DVD858V Exterior and PCB Disassembly

## 4-2-1 Door-tray

1. Supply power and open Tray ❶.
2. Disassemble the door-tray ❷ in direction of arrow.
3. Close Tray ❶ and power off.

**Note** : If Tray ❶ doesn't open, insert a clip ❸ into the hole (as shown in detailed drawing), and open Tray ❶ manually.

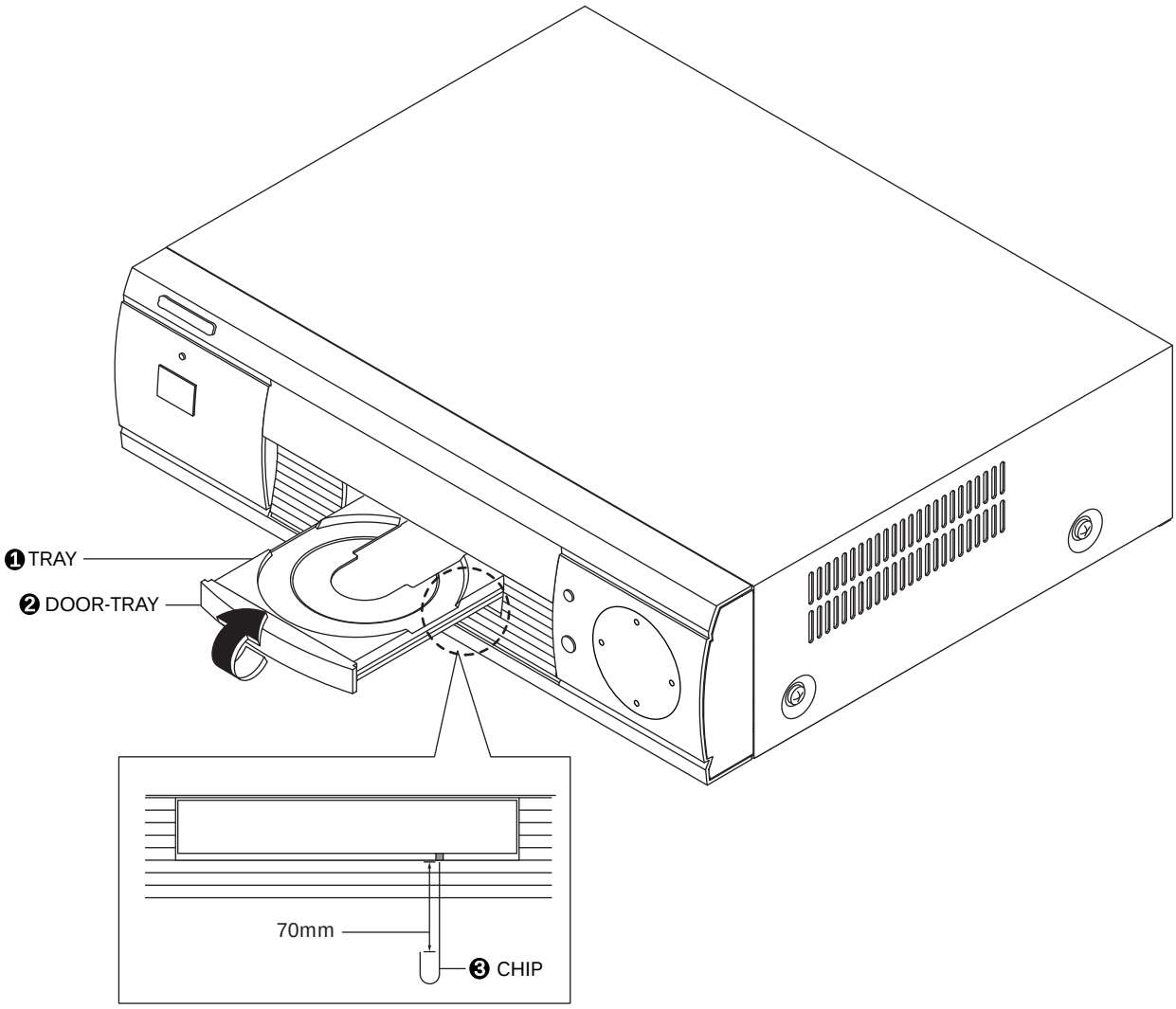



Fig. 4-6

## 4-2-2 Top cabinet

1. Remove 3 screws ❶ on the back panel.
2. Remove 4 screws ❷, ❸ on the left and right side.
3. Lift up the top cabinet in direction of arrow.

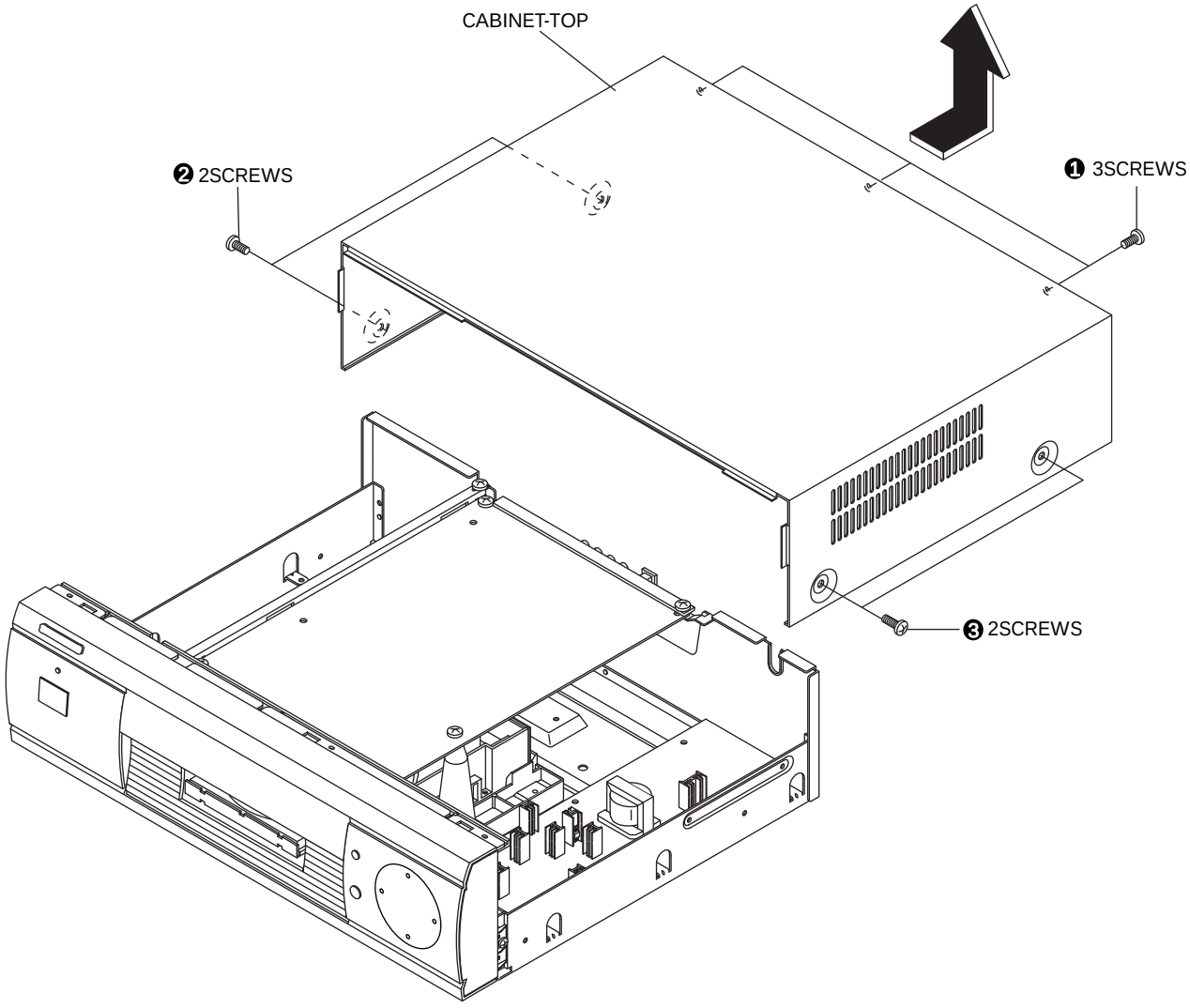



Fig. 4-7

## 4-2-3 Front

1. Remove 2 screws ❶, ❷ on the left and right side of panel-front ass'y
2. Remove 2 screws ❸ on the bottom of cover-panel ass'y and disassemble the front.
3. Remove 2 screws ❹ from PCB-front.
4. Remove 9 hooks to fix PCB-front and disassemble PCB-front.
5. Remove 2 screws ❺ on the top of cover-panel ass'y
6. Remove 4 top hooks ❻ and 5 bottom hooks ❼ and disassemble the cover-panel ass'y.

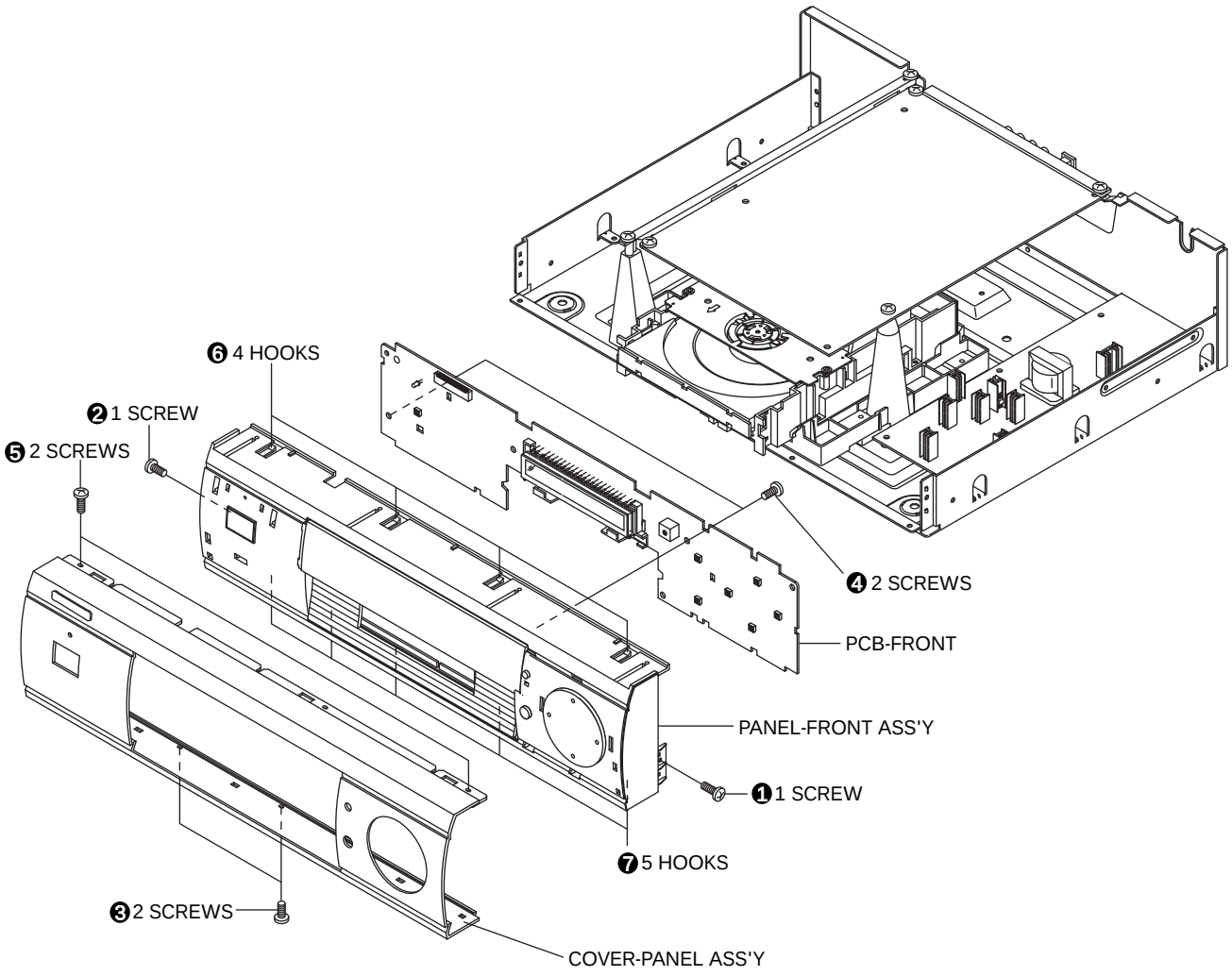



Fig. 4-8

## 4-2-4 PCB-MAIN, PCB-SMPS

1. Remove 4 screws ❶ to fix PCB-MAIN.
2. Remove 2 Holder-PCB ❷ inserted in PCB-MAIN and lift up PCB-MAIN.
3. Remove 3 screws ❸ from PCB-SMPS.
4. Remove 3 Spacer-PCB ❹ inserted in PCB-SMPS and lift up PCB-SMPS.
5. Remove 2 screws ❺ to fix BRKT-PCB ass'y.

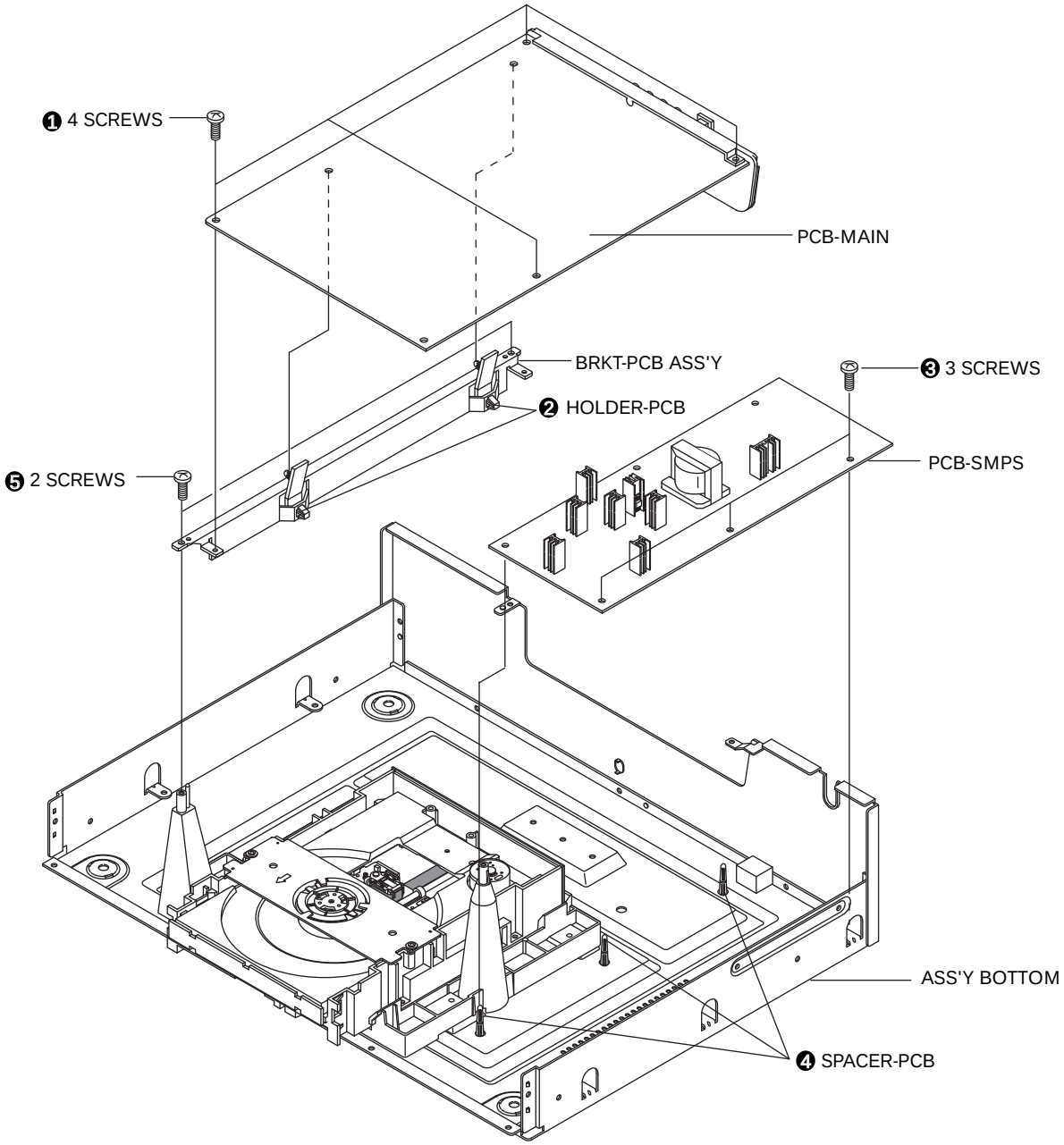



Fig. 4-9

## 4-2-5 Deck, Frame-chassis

1. Remove 4 screws ❶ from the deck and lift it up.
2. Remove 4 screws ❷ from the frame-chassis and lift it up.

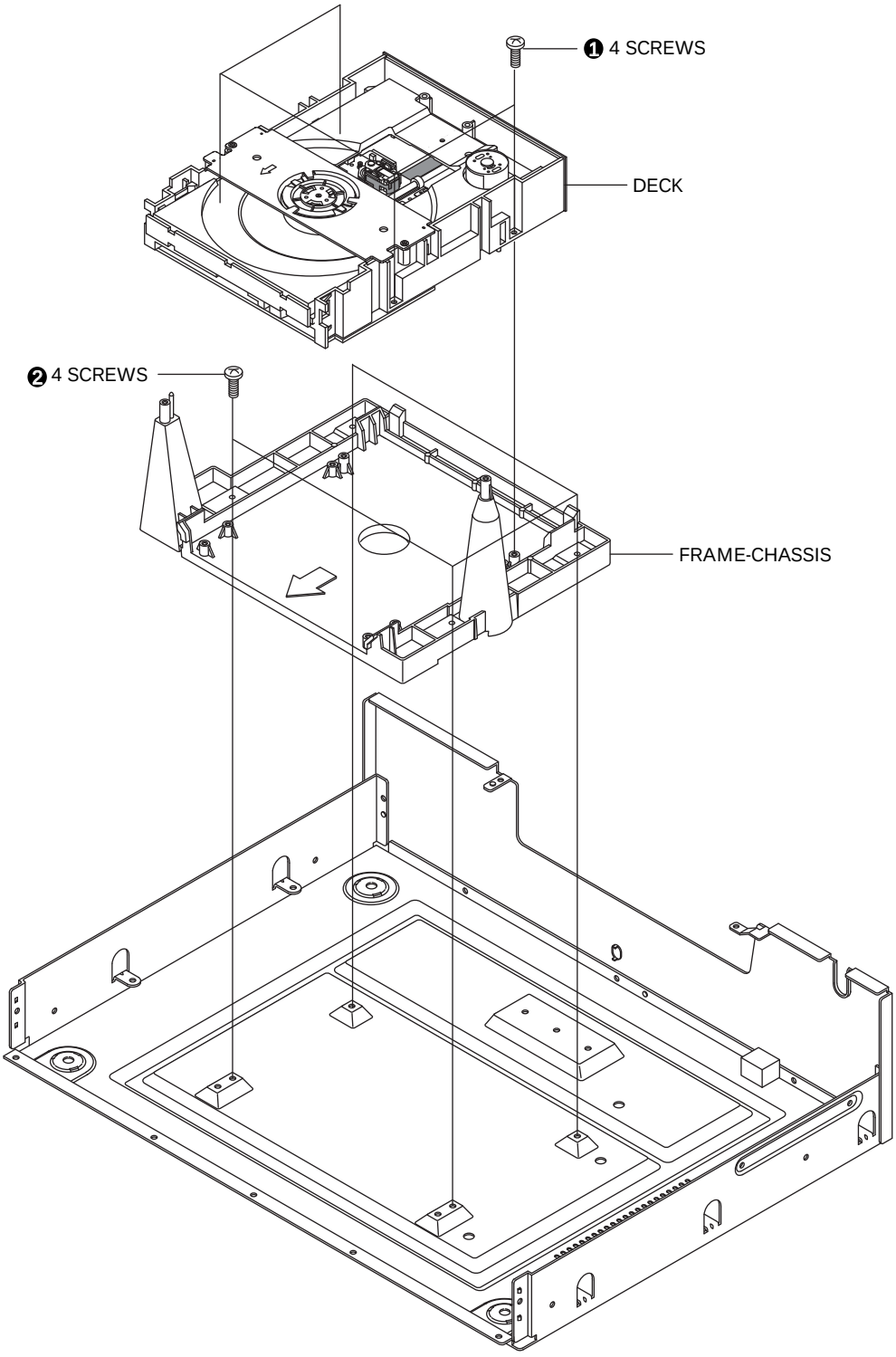
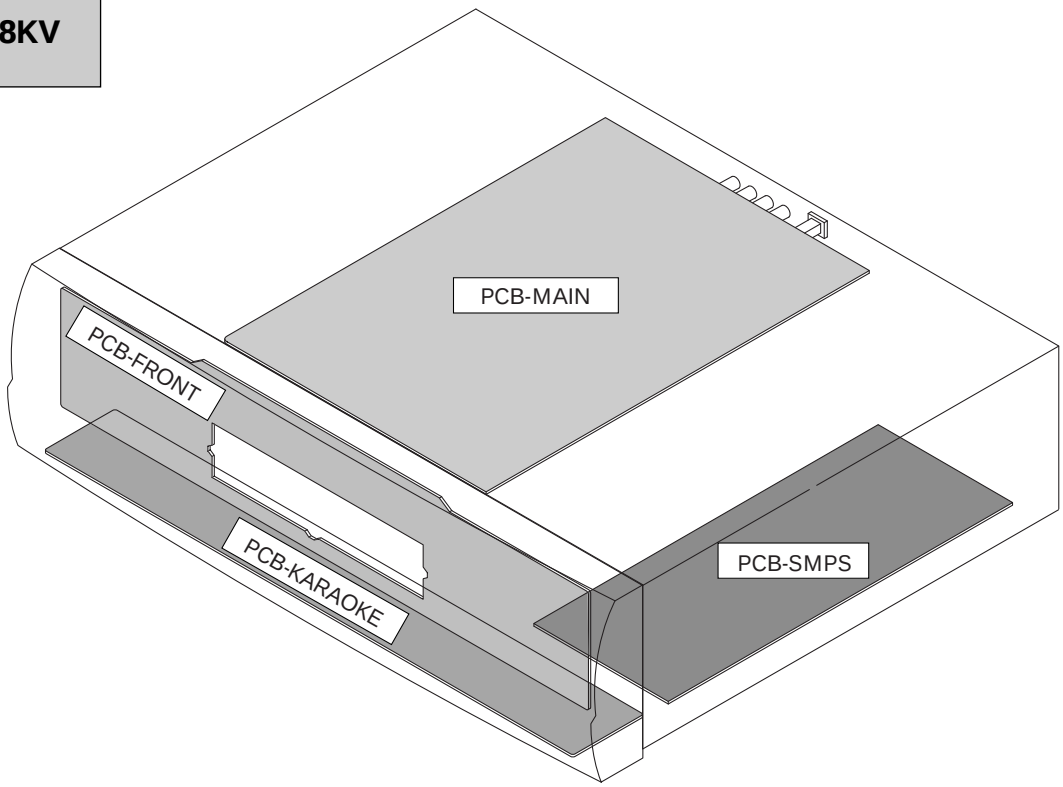



Fig. 4-10

## 4-3 PCB Locations

**DVD878KV**




**DVD858V**

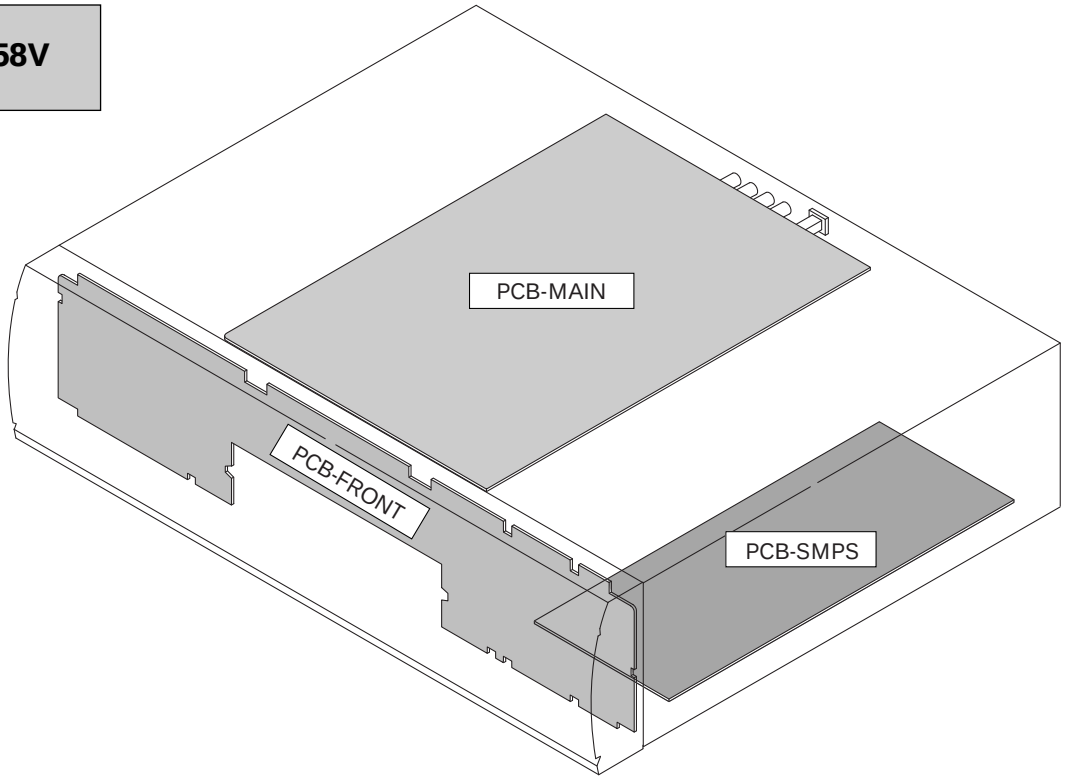



Fig. 4-11

# 4-4 Connectors

## 4-4-1 DVD878KV

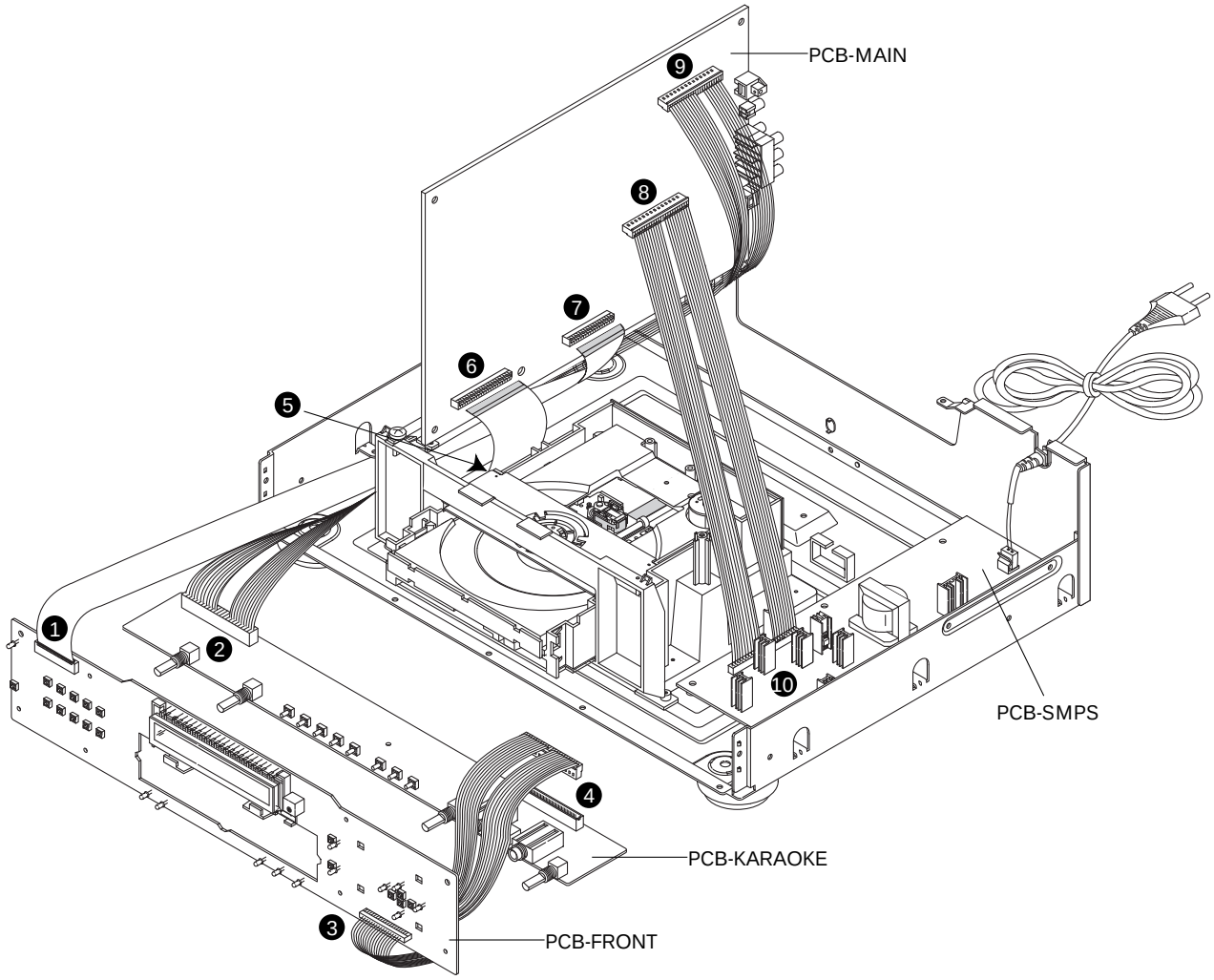



Fig. 4-12

| No. | Connector wafer No. | Direction | Connector wafer No. |
|---|---|---|---|
| ❶ | FCN1 | PCB-FRONT ⟷ PCB-MAIN | VCN11 |
| ❷ | KW2 | PCB-KARAOKE ⟷ PCB-MAIN | KCN1 |
| ❸ | FCN3 | PCB-FRONT ⟷ PCB-KARAOKE | KW1 |
| ❹ | KW1 | PCB-DECK ⟷ PCB-MAIN | FCN3 |
| ❺ | CN5 | PCB-DECK ⟷ PCB-MAIN | CN1 |
| ❻ | CN1 | PCB-MAIN ⟷ PCB-DECK | CN5 |
| ❼ | VCN11 | PCB-MAIN ⟷ PCB-FRONT | FCN1 |
| ❽ | PCN1 | PCB-MAIN ⟷ PCB-SMPS | PCN2 |
| ❾ | KCN1 | PCB-MAIN ⟷ PCB-KARAOKE | KW2 |
| ❿ | PCN2 | PCB-SMPS ⟷ PCB-MAIN | PCN1 |

## 4-4-2 DVD858V

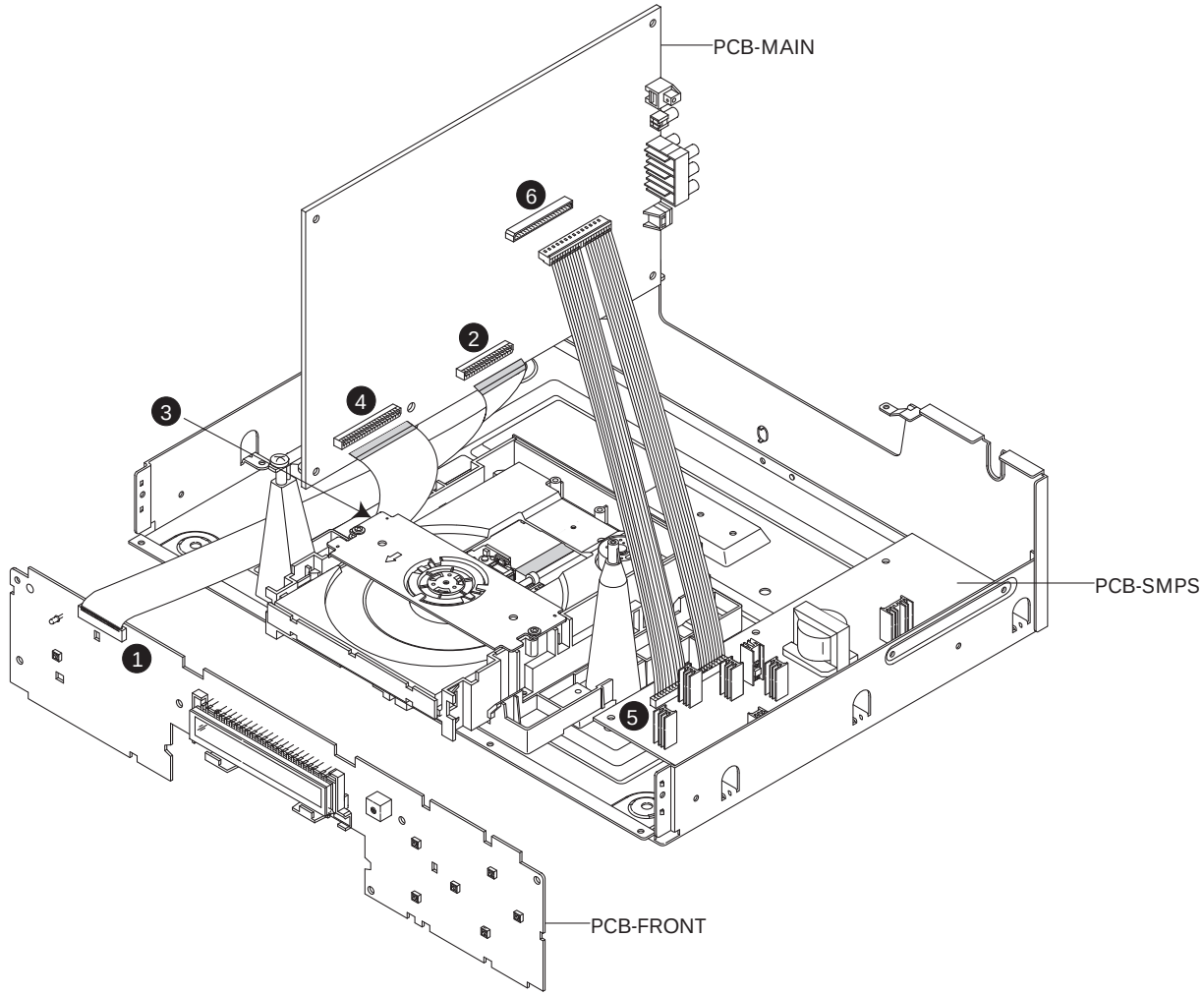



Fig. 4-13

| No. | Connector wafer No. | Direction | Connector wafer No. |
|---|---|---|---|
| ❶ | FCN1 | PCB-FRONT ⟷ PCB-MAIN | VCN11 |
| ❷ | VCN11 | PCB-FRONT | FCN1 |
| ❸ | CN5 | DECK ⟷ PCB-MAIN | CN1 |
| ❹ | CN1 | DECK | CN5 |
| ❺ | PCN02 | PCB-SMP ⟷ PCB-MAIN | VCN13 |
| ❻ | VCN13 | PCB-SMPS | PCN02 |

# 4-5 Deck Disassembly

## 4-5-1 Tray

1. Remove 2 screws ❶ and lift up the ass'y-deck clamper ❷.
2. Insert a clip into Emergency hole, and push Gear-Cam Center ❸. When the tray ❹ comes out a little, pull it in direction of arrow "C".
3. Pull the tray ❹ to disassemble, while simultaneously pushing the hook ❺, ❻ in direction of arrow "A", "B".

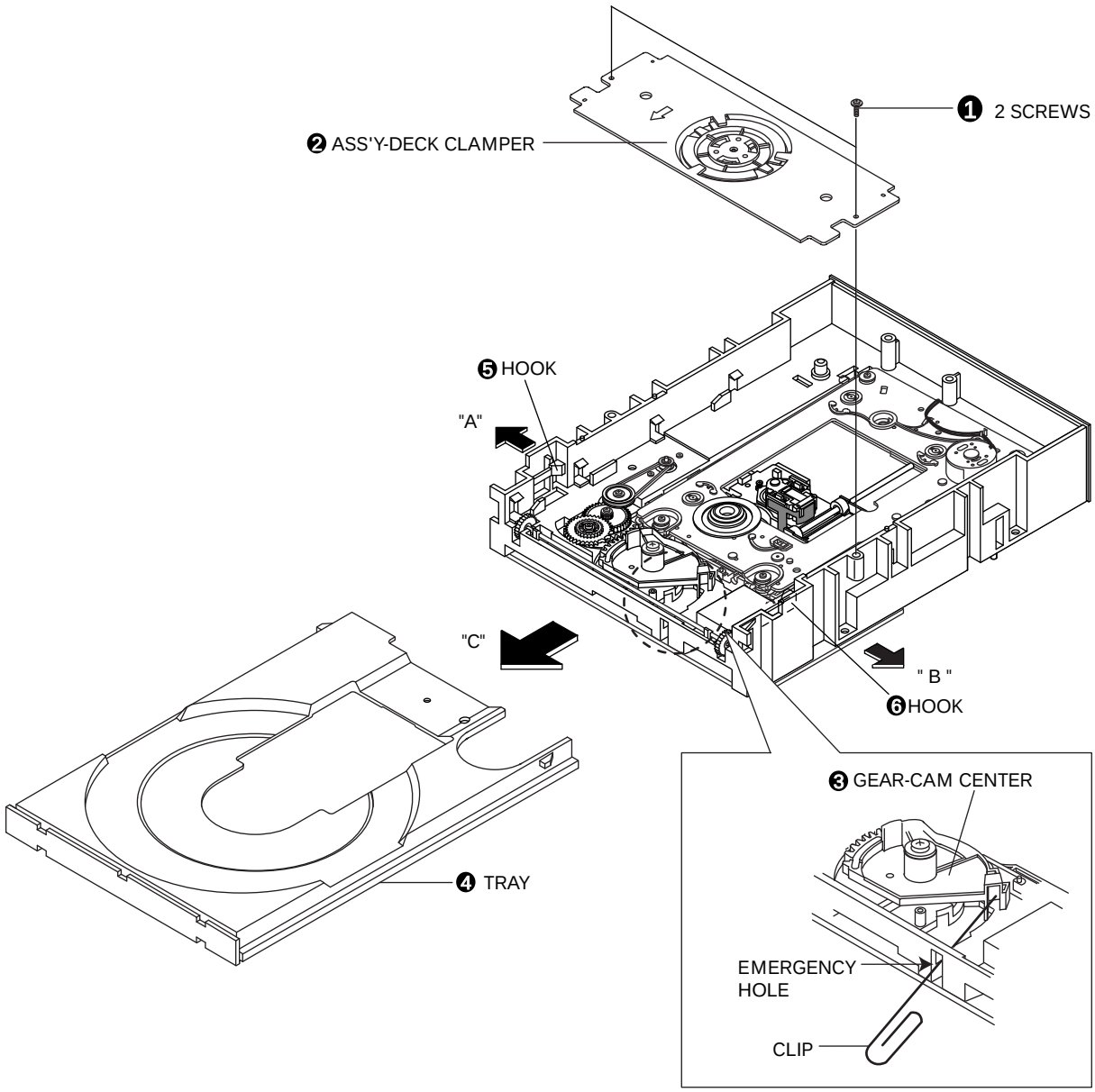



Fig. 4-14

## 4-5-2 Ass'y-Deck DVD

1. Remove 2 screws ❶ and disassemble the ass'y-PCB deck ❷.
2. Disassemble the ass'y-deck DVD ❹ in direction of arrow "B", while simultaneously pushing the hook ❸ in direction of arrow "A".

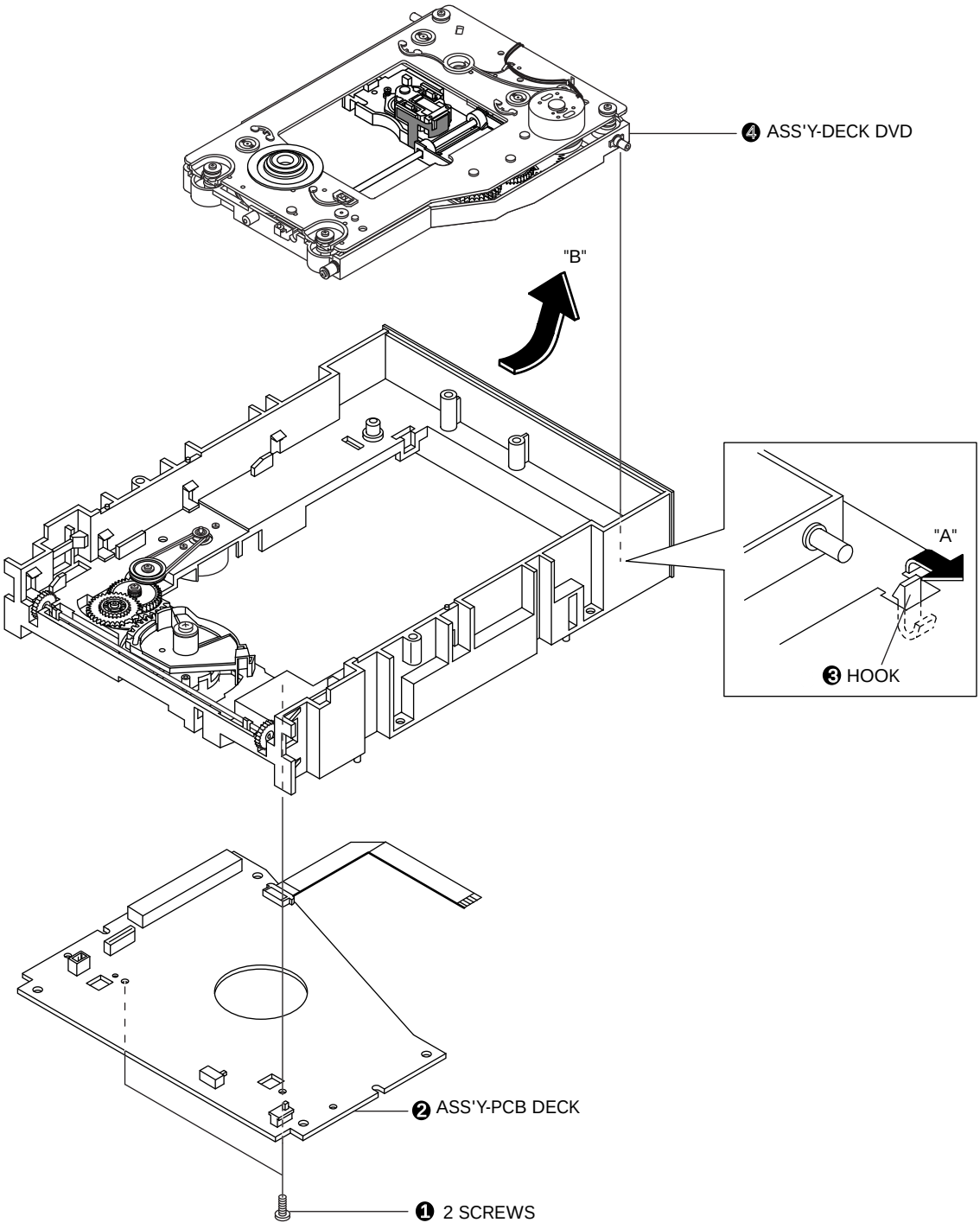



Fig. 4-15

## 4-5-3 Chassis-Main parts

1. Lift up the gear-tray ❶, remove 1 screw ❷ and lift up the gear-cam center ❸.
2. Lift up the belt-pulley ❹, remove 1 screw❺ and lift up the pulley-gear ❻.
3. Remove 1 screw ❼ and lift up the gear-tray A ❽ and gear-cam sub ❾.
4. Remove 2 screws ❿ and disassemble the ass'y-motor load ⓫.
5. Remove 1 screw ⓬ and disassemble the lever-open S/W ⓭.
6. Lift up the shaft-syncro ⓮ and remove the 2 gear-syncro ⓯ in both directions.

**Assembling** : Adjust the shaft end of motor-feed so that it is exactly equal to the height of the hump in gear pole of ass'y-gear magnet.

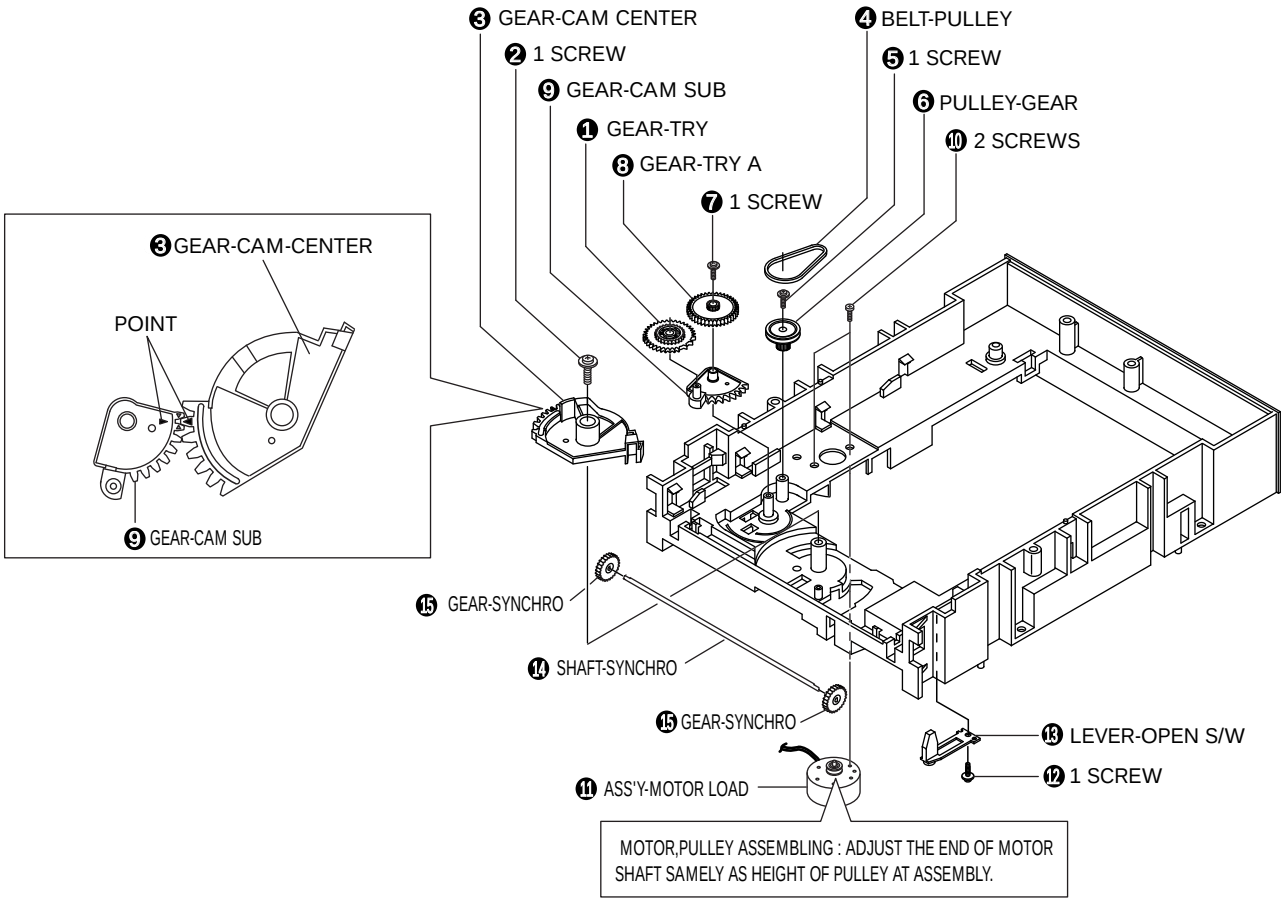



Fig. 4-16

## 4-5-4 Ass'y deck

1. Remove 4 screws ❶.
2. Lift up the ass'y-deck ❷.

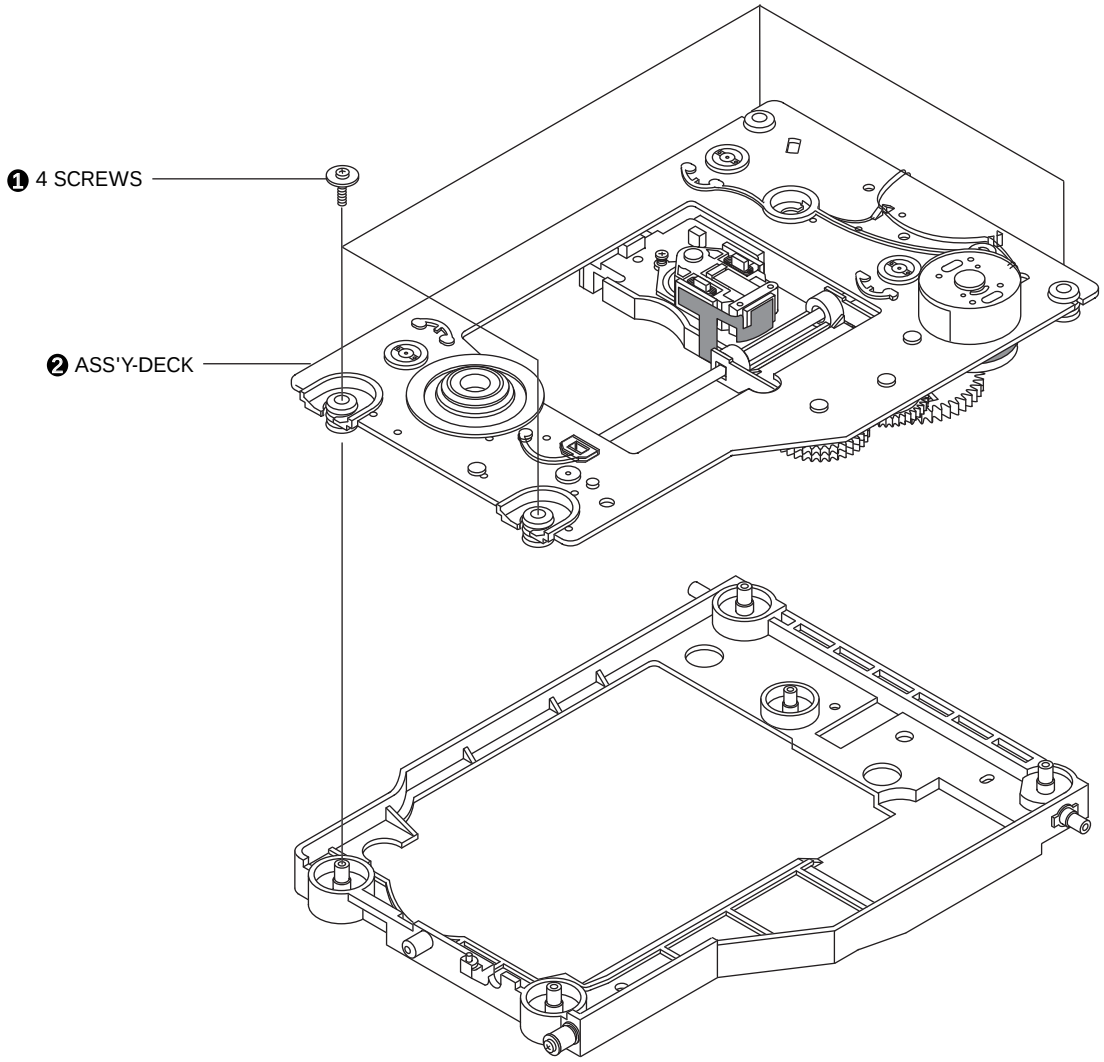



Fig. 4-17

## 4-5-5 Ass'y-Deck parts

1. Remove 3 screws ❶ and disassemble 3 holder-cams ❷.
2. Disassemble the rack-slide ❺ and ass'y-pickup ❻, while simultaneously removing the shaft-P/U-L ❸, shaft-P/U-R ❹.
3. Remove 3 screws ❼ and disassemble the ass'y-motor spindle ❽.
4. Remove the washer-plain ❾ and disassemble the ass'y-gear feed AU/AL ❿.
5. Remove the washer-plain ⓫ and disassemble the gear-feed B ⓬.
6. Remove the washer-plain ⓭ and disassemble the ass'y-gear feed CU/CL ⓮.
7. Disassemble the ass'y-gear magnet ⓯.
8. Remove 2 screws ⓰ and disassemble the ass'y-PCB hall sensor ⓱.
9. Remove 1 screw ⓲ and disassemble the motor-feed ⓳.

**Assembling** : Adjsut the shaft end of motor-feed ⓳ so that it is exactly equal to the height of the hump in gear pole of ass'y-gear magnet.

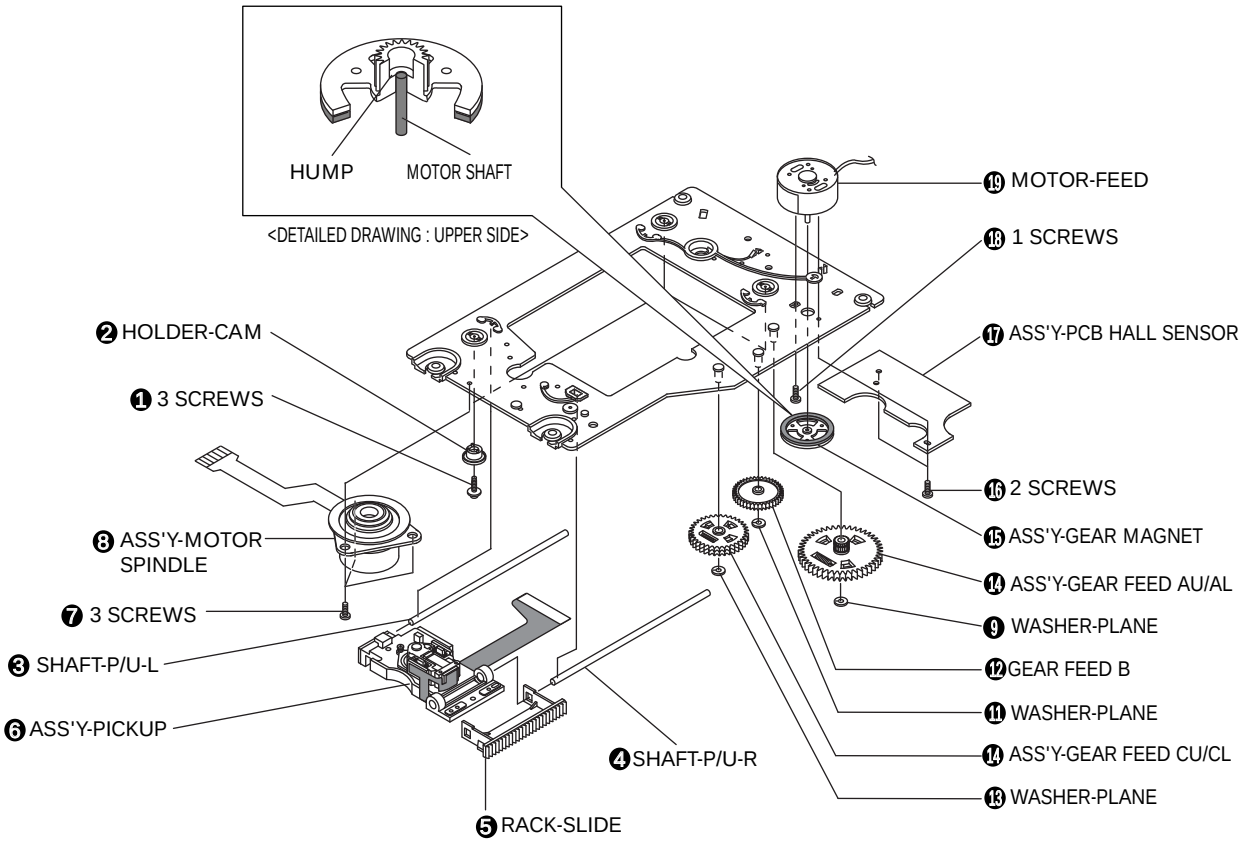



Fig. 4-18

# 2. Circuit Operating Description

## 2-1 SMPS circuit description

### 2-1-1 Comparison between linear power supply and SMPS

2-1-1(a) LINEAR

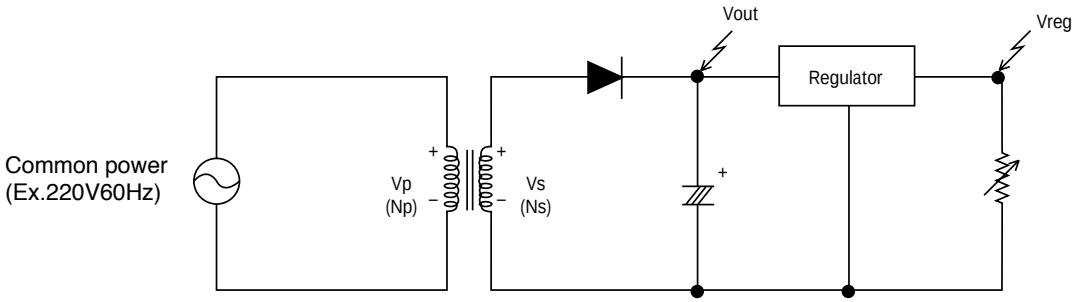



Fig. 2-1

◆ Waveform/Description

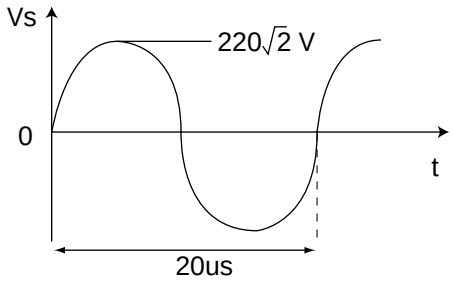



Fig. 2-2

Input : Common power to transformer(Vp)

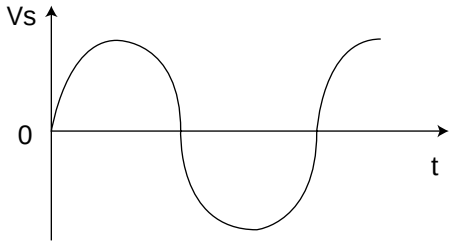



Fig. 2-3

The output Vs of transformer is determined by the ratio of 1st Np and 2st Ns.
Vs = (Ns/Np) x Vp

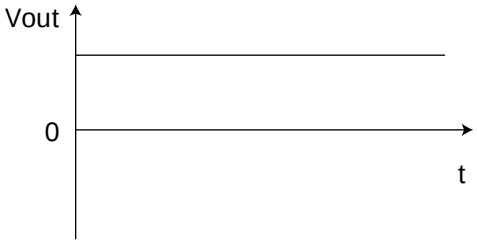



Fig. 2-4

Vout is output (DC) by diode and condensor.

◆ Advantages and disadvantages of linear power supply

a. Advantages :
Little noise because the output waveform of transformer is sine wave.

b. Disadvantages :
» Additional margin is required because Vs is changed (depending on power source). (The regulator loss is caused by margin design).
» Greater core size and condensor capacity are needed, because the transformer works on a single power frequency.

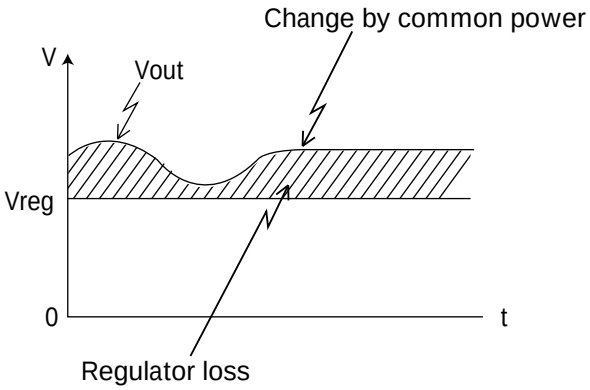



Fig. 2-5

## 2-1-1 (B) SMPS(PULSE WIDTH MODULATION METHOD)

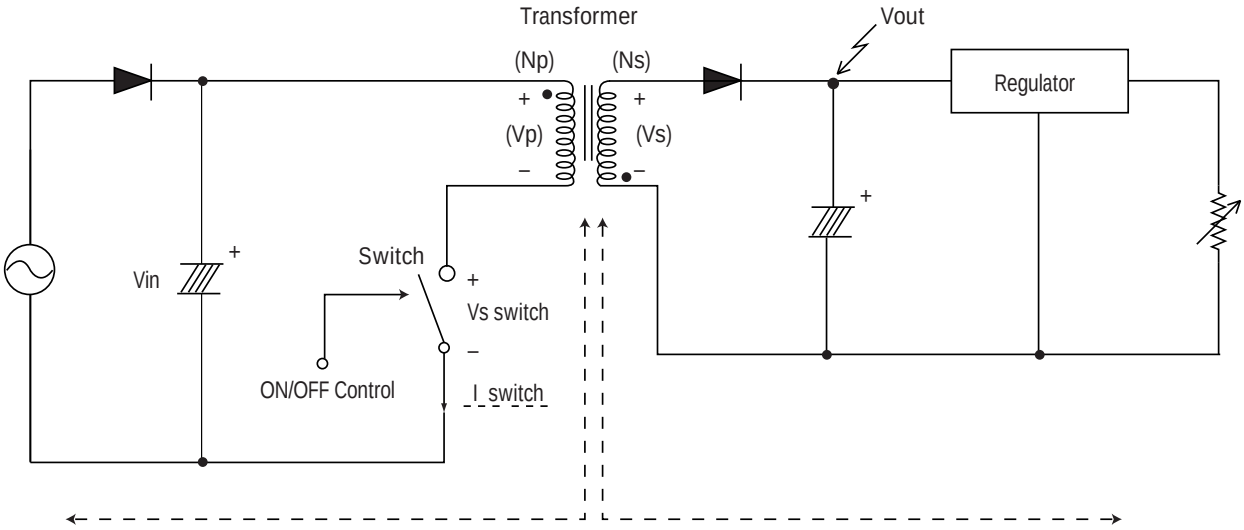



Fig. 2-6

◆ Terms

- 1st : Common power input to 1st winding.
- 2d : Circuit followings output winding of transformer.
- f(Frequency) : Switching frequency(T : Switching cycle)
- Duty : (Ton/T) x 100

◆ Waveform

Fig. 2-7

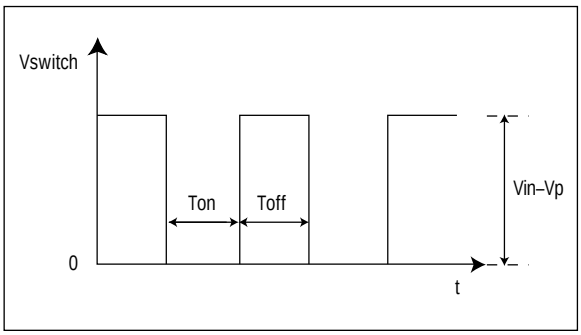



Fig. 2-11

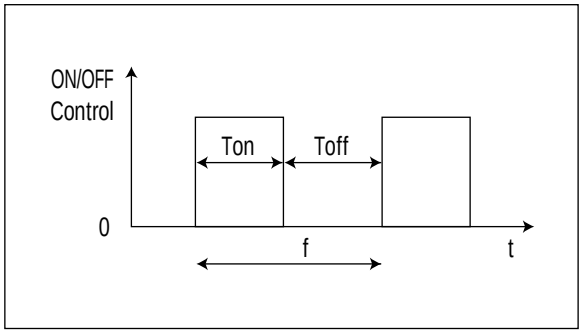



Fig. 2-8

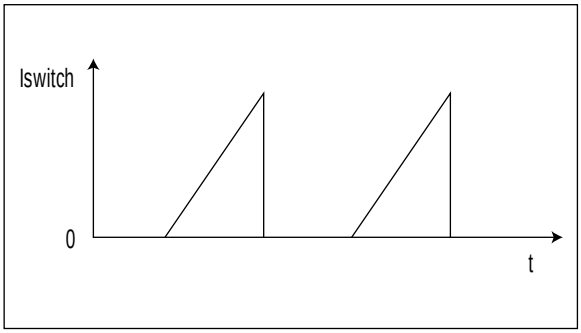



Fig. 2-12

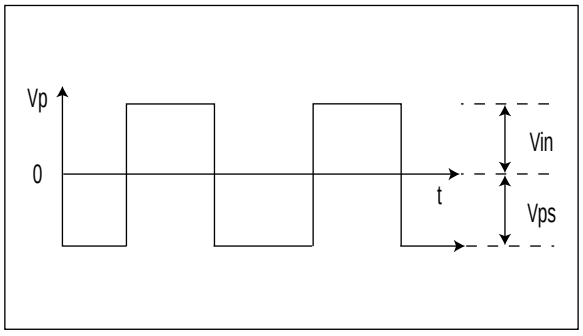



Fig. 2-9

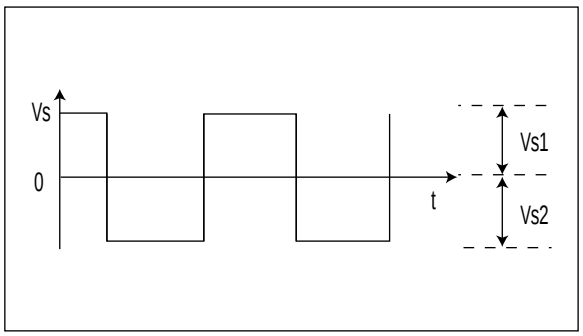



Fig. 2-10

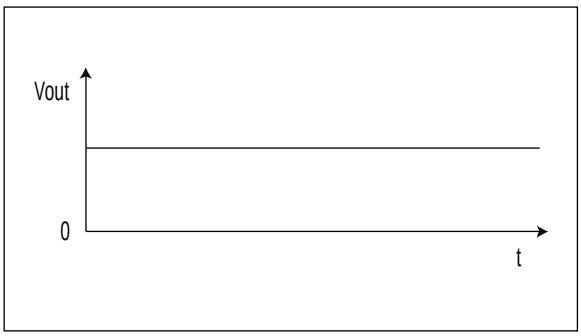



Fig. 2-13

## 2-1-1(c) INTERNAL BLOCK DIAGRAM

1. Internal block diagram of SMPS circuit

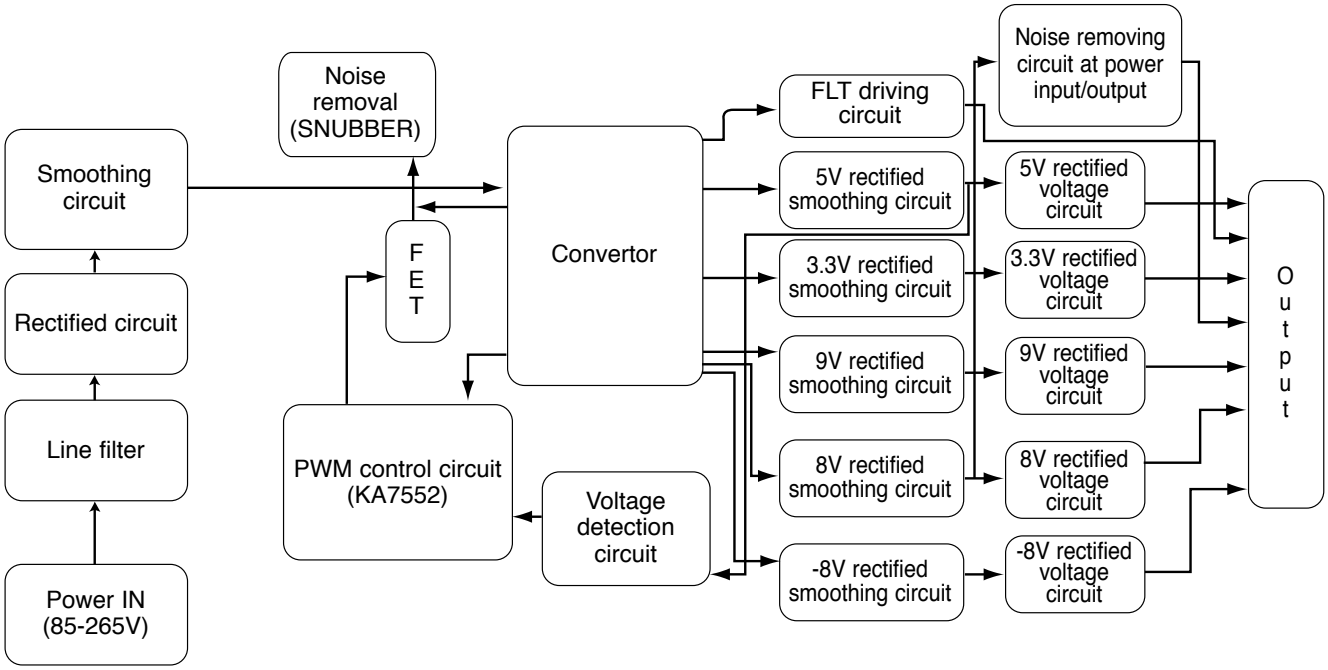



Fig. 2-14

2. PIC1(KA7552) internal block diagram

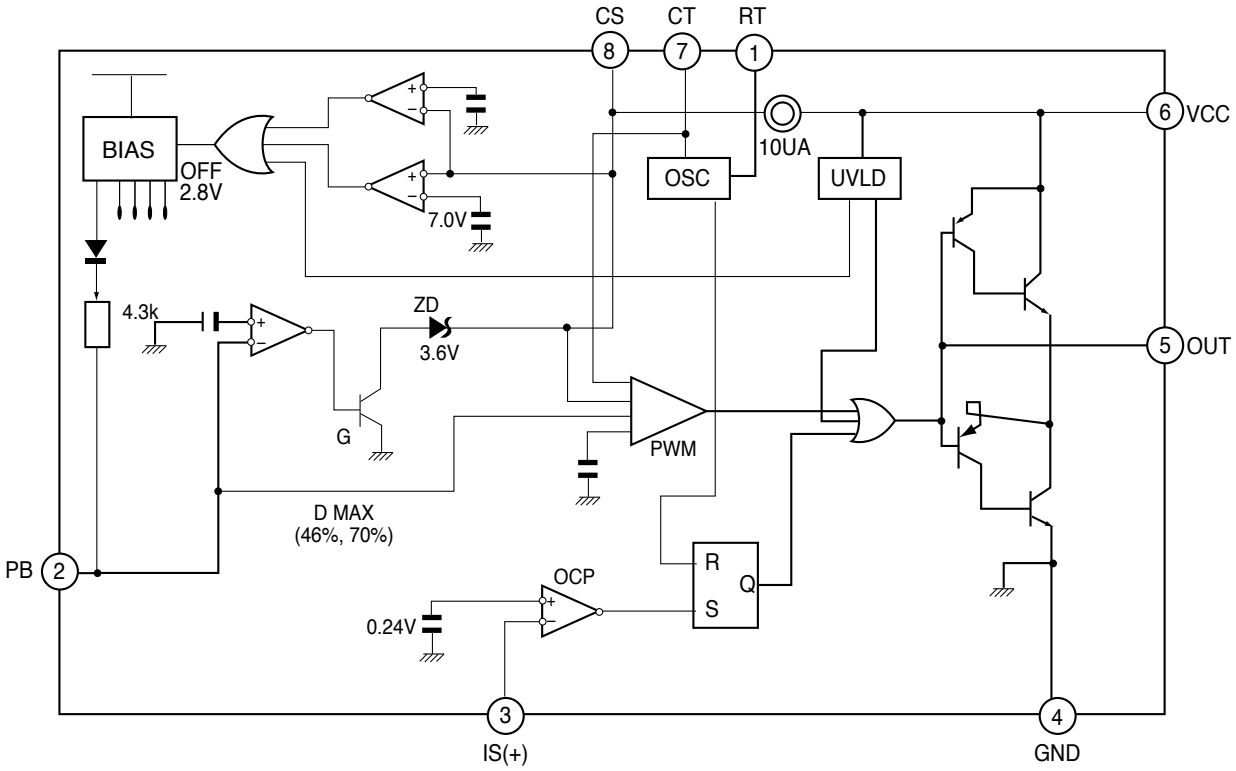



Fig. 2-15

## 2-1-2 SMPS circuit description

### 2-1-2(a) CIRCUIT METHOD

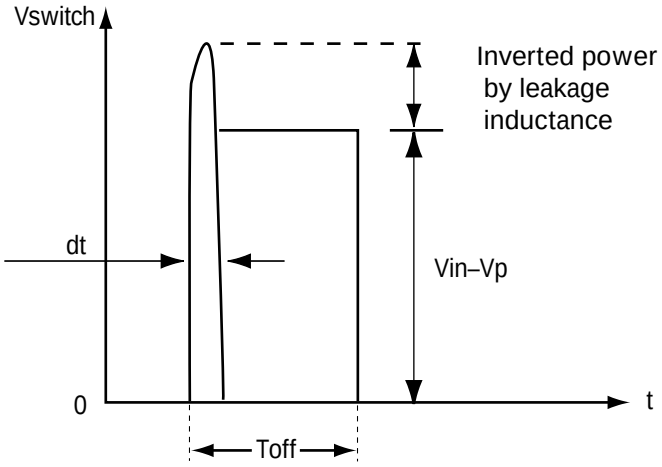
FLY-BACK PWM(Pulse width modulation) control

### 2-1-2(b) CIRCUIT DESCRIPTIONS

1. AC power rectification/smoothing terminal

- PD01 : Convert AC power to DC(Wave rectification)
- PO10 : Smooth the voltage converted to DC(Refer to Vin of Fig. 2-7)
- PC01, PC02, PC03, PC04, PC05, PC06, PL01, PL02, PL03 : Noise removal at power input/output
- PVA1 : SMPS protection at power surge input
- PVA2 : SMPS protection at 2st ground surge input(PVA1 pattern open : to remove noise)
- PR10 : Rush current limit resistance during power cord insertion.
  - » Rush current = (AC input voltage x 1.414 - Diode drop voltage) / Pattern resistance + PL02.01 resistance + PC10 resistance + PR10) (AC230V based : approx. 26A)
  - » Without PR10, the bridge diode might be damaged as the rush current increases.

2. SNUBBER circuit : PR17, PR18, PC11, PD10




- Prevent residual high voltage at the terminals of switch during switch off/Suppress noise. High inverted power occurs at switch off, because of the 1st winding of transformer: (V=L1xdi/dt. LI : Leakage Induction) A very high residual voltage exists on both terminals of PQ1 because dt is a very short.
- SNUBBER circuit protects PQ1 from damage through leakage voltage suppression by RC, (Charges the leakage voltage to PD10 and PC11, and discharges to PR17 and PR18).
- PC12, PL11 : For noise removal

Fig. 2-16

3. PIC1 Vcc circuit

- PR11, PR12, PR13, PR14 : PIC1 driving resistance (PIC1 works through driving resistance at power cord in)
- PIC1 Vcc : PR20, PD12, PC17

1) Use the output of transformer as Vcc, because the current starts to flow into transformer while PIC1 is active.
2) Rectify to PD12 and smooth to PC17.
3) Use the output of transformer as PIC1 Vcc : The loads are different before and after PIC1 driving. (Vcc of PIC1 decreases below OFF voltage, using only the resistance due to load increase after PIC1 driving.)

- PR20 : For noise removal

4. PIC1 function : PWM control (Refer to Switch ON/OFF Control of Fig. 2-6)

| PIN | NAME | CLASS | SPEC. | FEATURES |
|---|---|---|---|---|
| 1 | RT | - | 0.56V | * Resistance to determine OUT terminal(pin5) ON/OFF control frequency<br>- Determined with CT terminal(pin7) and for DVDP, 50KHz<br>RT : PR24, CT : PC13 |
| 2 | F/B | - | - | * OUT terminal duty is determined by F/B potential<br>(Duty control : 2st output constant-voltage control)<br>* The voltage of PIC2(Output voltage freedback) is input to F/B terminal. |
| | | OFF voltage | 0.75V | * If F/B terminal potential decreases below 0.75V, OUT duty is zero.<br>- SMPS 2st output voltage is zero. |
| | | SHUT OFF voltage | 2.8V | * If F/B potential is above 2.8V, CS terminal(8pin) potential ascends in IC. If CS potential rises above 7V, SHUT OFF mode is maintained. |
| | | DUTY MAX voltage | 2.3V | * SHUT OFF mode : IC internal bias OFF state.(Operation stop) |
| 3 | IS | LIMIT voltage | 0.24V | * If IS terminal potential is above 0.24V, maintain on time only when IS terminal potential is 0.24V without holding OUT duty determined in F/B terminal(Duty limit).<br>* PQ1(F,E,T) current is distributed to PR22, PR21 in voltage, and input to IS terminal.<br>* Purpose : Limit the overcurrent of PQ1(Current waveform : See Fig. 2-10) |
| 4 | GND | - | - | * Ground(SMPS 1st ground) |
| 5 | OUT | - | - | * ON/OFF control pulse output terminal(f : fixed, ON TIME : variable) |
| | | Maximum DUTY | 70% | * Maximum duty is 70% (Maximum). |
| 6 | VCC | ON voltage | 16V | * IC power supply terminal. IC function starts at exceeding 16V. Vcc less than 8.7V will be OFF after IC working.(See Clause 3. Vcc circuit)<br>- Vcc voltage is 10-12V at normal operation. |
| | | OFF voltage | 8.7V | |
| 7 | CT | - | - | * ON/OFF frequency determining terminal(Refer to 1 pin RT terminal) |
| 8 | CS | OFF voltage | 0.42V | * OS potential setting : Connect the condenser to OS terminal(PC14)<br>* ON/OFF control : If CS potential is above 0.56V, IC function starts and if below 0.42V, IC function stops.<br>* At normal operation : Maintain 3.6V in IC<br>* SHUT OFF mode : If CS potential is above 7V, shut off.(Overload prevention)<br>- SHUT OFF function : When IS, F/B, CS terminal are all operated normally.<br>(Refer to Clause 6. MAX. POWER limiting circuit)<br>* SOFT START : Switch protection at initial starting<br>- F/B potential is 3.6V internally at initial starting.(Duty max.)<br>- PQ1 damage occurs due to overcurrent on switch at duty max.<br>- CS terminal sets the duty with F/B terminal<br>- Connect PC14 to CS terminal and set the voltage charging time at initial starting.<br>- Increase the duty by raising the voltage gradually via PC14 at initial starting for normal operation.<br>(Duty max. is limited by F/B potential at initial starting) |
| | | ON voltage | 0.56V | |
| | | | 3.6V | |
| | | SHUT OFF voltage | 7V | |
| | | MAX DUTY voltage | 2.3V | |

5. Feedback control circuit

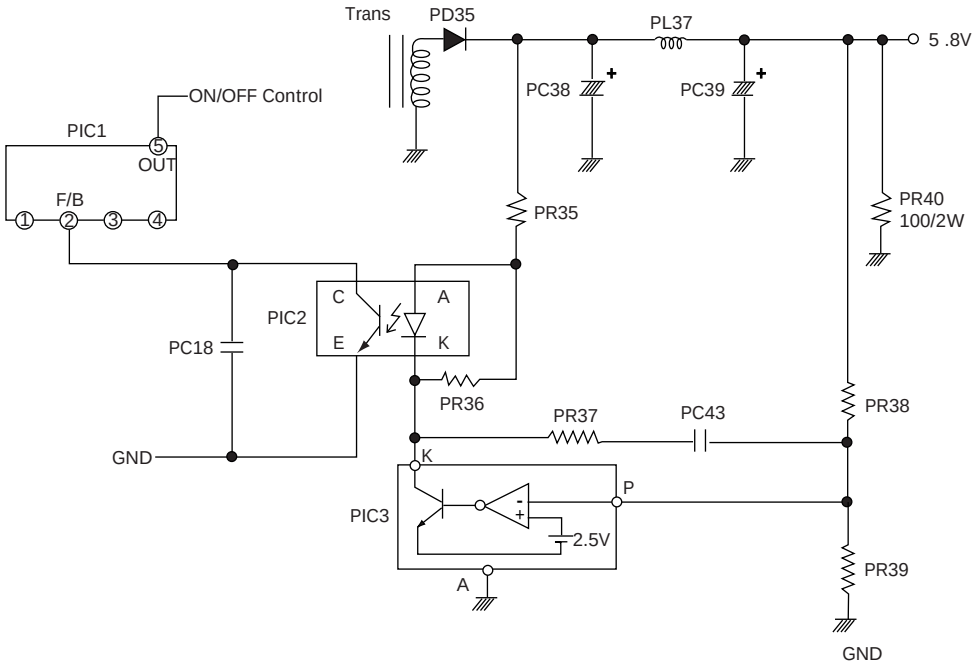



Fig. 2-17

- F/B terminal of PIC1 determines output duty cycle.
- Duty definition : Refer to Vs1 in Fig4-10.(Duty up: Vs1 up, Duty down: Vs2 down)
- C-E(Collector-Emitter) of PIC2 and F/B potential of PIC1 are same.
- At F/B terminal open : SHUT OFF mode
  - » F/B potential is set to 3.6V internally.
    F/B potential decreases to 1-2V by C-E voltage of PIC2 ( controlled by normal operation. )
  - » When F/B terminal is open, shut off occurs because 2.8V is exceeded.
    (Refer to clause 4.)

◆ Operation descriptions

a. Internal OP-Amp '+' base potential of PIC3 is 2.5V and external "-" input potential is connected with PR38 and PR39 to maintain Vout of 5.8V. (Vout = ((PR36 x PR39) / PR39) x 2.5V)

b. If load of 5.8 V terminal increases(or AC input voltage decreases) and Vout decreases below 5.8V, then : PIC3 'P' potential down below 2.5V –-> PIC3 A-K of base current down –-> PIC3 of A-K current down –-> PIC2 Diode current down –-> PIC2 C-E current down –-> PIC2 C-E voltage up –-> PIC1 F/B voltage up –-> OUT Duty up –-> Transformer 1st current up –-> Transformer 1st power up –-> Vout up –-> Maintain Vout 5.8V

c. If load of 5.8 V terminal decreases(or AC input voltage rises) and Vout rises above 5.8V, then : Reverse sequence of the above description → Duty down → Vout down → Maintain 5.8V (i.e., the feedback to maintains 5.8V).
   - PR35, PR36 : Reduce 5.8V overshoot
   - PR37, PC43 : Prevent IC3 oscillation(for phase correction)
   - PC18 : Adjust feedback response rate

6. Maximum power limit circuit

* Circuit configuration : PIC1 F/B, CS, IS terminal PR23, PR21, PR22, PC13A
* Role : Switch overcurrent protection
* The current on switch inputs to IS and outputs as voltage via PR23, PR21, PR22.
* If the current on switch increases and IS terminal input voltage exceeds 0.24V, duty is determined by F/B terminal. Accordingly, the current on switch is limited less than specific current.(If 2d load rises, the switch current increases. Refer to clause 5. in circuit description).
* If I/S terminal is open : Switch and other parts are damaged because the switch is not limited during abnormal status (for example, 2d ouput terminal short).

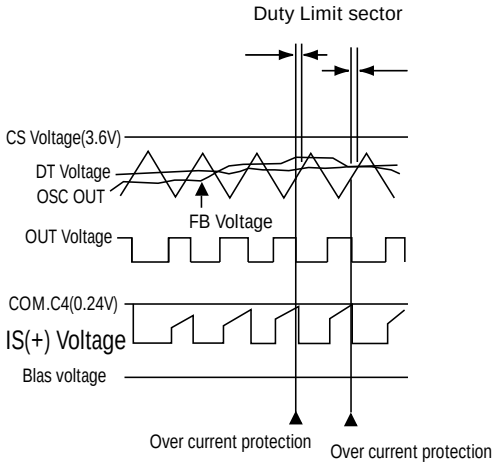



Fig. 2-18

1) Intermittent operation mode
- Definition : PIC1 can't deliver normal output, and repeats Vcc ON/OFF operation(Vcc voltage is swing between 16V(ON) and 8.7V(OFF).
- Operation description : for example. 2d output terminals shorted, then :
  Specific 2d terminal short –-> 2d power is concentrated on short terminal –-> 5.8V(PC39) voltage down –-> F/B voltage up (Refer to clause 5.) –-> Duty up –-> Switch current up –-> Limit switch current to IS terminal(Duty limit)–-> Apply 1st supply power in comparison with 2d power –-> Concentrate on 2d power short terminal–-> PIC1 Vcc terminal TRANS. output voltage down below 8.7V–-> PIC1 OFF –-> PIC1 ON via driving resistance –-> Above operations repeated → Maintain intermittent operation mode (See Fig. 2-19 Waveform).
  At short release : normal operation

2) Short OFF mode
- Main examples : Feedback circuit Open, Max, Power excess(Design spec.), 5.8V Terminal short
- Operation description :
  Ex - 2d load is high abnormally;
  1st supply power is low in comparison with 2d output power. 5.8V down –-> Duty up –-> Switch current up –-> IS terminal duty limit –-> 1st supply power limit –-> 5.8V voltage down –-> F/B potential above 2.8V(Shut OFF voltage) –-> OS terminal potential up (Refer to Clause 4.)F/B –-> OS potential above 7V –-> Shut OFF mode
- The output voltage of SMPS is zero because PIC1 doesn't work during Shut OFF mode.
- Shut OFF mode release : OS potential decreases below 7V.(Charge OS terminal forcely)
- Feedback terminal open : Shut OFF (Refer to clause 5.);
  PC13A : For IS terminal input noise removal

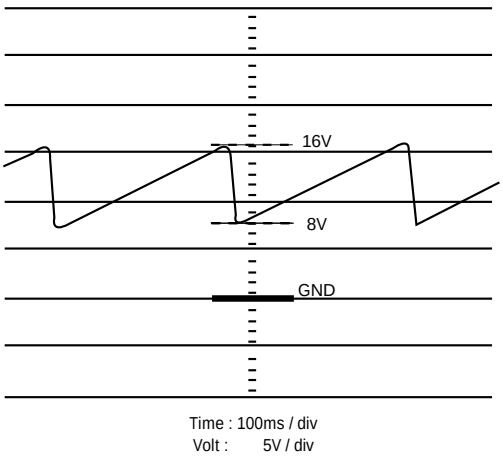



Fig. 2-19

7. Shut Off mode prevention circuit at instant load increase : PC15, PZD13

- During a sudden load increase;
  By means of current concentration on specific output terminal, 5.8V voltage down –-> F/B potential up–-> Maintain Shut Off mode.
  Stablize F/B potential (Loading completion) below 7V by lengthening CS potential rise time to 7V (in order to prevent Shut Off mode).

- Normal operation : CS potential is 3.6V and PZD13(4.7V ZENER) is open.

- OD potential above 4.7V at instant load increase –-> PZD13, PC15 work –-> OS terminal condenser capacity increases in parallel with PC14 and PC15 –-> CS potential rising rate down –-> Instant operation completed –-> F/B potential stable –-> Normal operation

8. Maximum power limiting circuit addition : PZD11, PR19

- SMPS efficiency : Below 25W : High efficiency at AC110V input
  Above 25W : High efficiency at AC230V input

- The peak value of current on switch at overload is lower than that at 110V input because SMPS is highly efficient above 25W at 230V input. Therefore, maximum power increases at 230V as compared to 110V at overload. Add PZD11, PR19 and set to the same level as 110V.

- Higher at 230V input than at PZD11 input, limit maximum power because IS terminal potential goes up.

9. PQ1(F,E,T) Gate Drive Circuit : PR15, PR16, PD11

- PIC1 OUT is square wave but charging and discharing by PR15, PR16 occurs due to internal condenser between gate-sources of PQ1.

- PR15, PR16 : Switch ON Time setting - PD11 is reverse : PIC1 OUT –-> PR15 –-> PR16 –-> Charge to gate

- PR16, PD11 : Switch OFF Time setting - PD11 is proper : GATE - PR16 –-> PD11 –-> Discharge to PIC1 OUT(GND)

- Switch ON/OFF time : Releated to switch loss and noise

10. PIC1 overcurrent protection : PZD12
- Operate PZD12 and protect PIC1 from damage from residual overcurrent (PIC1 Vcc, due to external surge inflow and feedback line open).

# 2-2 RF circuit description

## 2-2-1 RIC1(TA1236F)

TA1236F is combined with TA1253FN, TC9240F and TC90A19F as bipolar IC developed for DVD SERVO system. Main features include DVD waveform equalizing, CD waveform equalizing, focus error signal generation, 3-beam tracking error signal generation, laser power control, etc. after receiving the pick-up output converted into I/V.

1. Basic potentiometer
   TA1236F uses a single power method and each circuit is based on $V_{REF}$ of 2.1V. Note :
   symmetrical about GND for $V_{REF}$ because $V_{REF}$(pin20) terminal is needed for IC, which uses the peripheral $V_{REF}$ and $2V_{REF}$ output(pin18).

2. RF signal
   Fig. 2-20 shows the flow of signal generated by the pick-up.
   A, B, C, D signals detected from pick-up are converted in to RF signal(A+B+C+D) via RF summing AMP.
   RF signal is inputted to RFN(pin55) among input terminals and RFP(pin54) is used for AC ground.

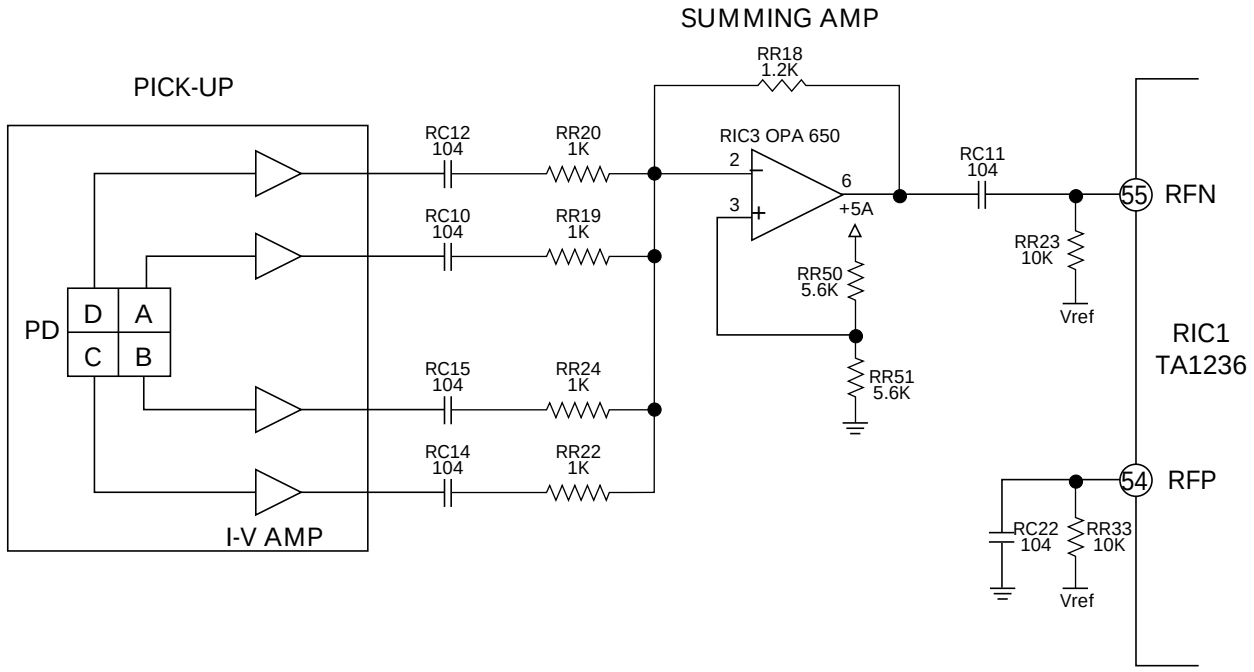



Fig. 2-20

Fig. 2-21 shows the waveform-equalizing block diagram for the RF signal.
It outputs to EQout(pin 46) terminal by initially changing switching AMP gain of DVD and CD, and then adjusting the level in VCA. It controls VCA gain by means of RF gain(pin 48) and interfaces with PWM signal, (output from RFGC terminal of TC9420F, via low-pass filter to constitute a loop for adjustment of constant amplitude). The gain in EQout is 1.0 for DVD and 1.67 for CD.

EQout terminal is connected with EQin(pin 45) externally, and inputs into DVD EQ and CD EQ(Waveform equalizing circuit).

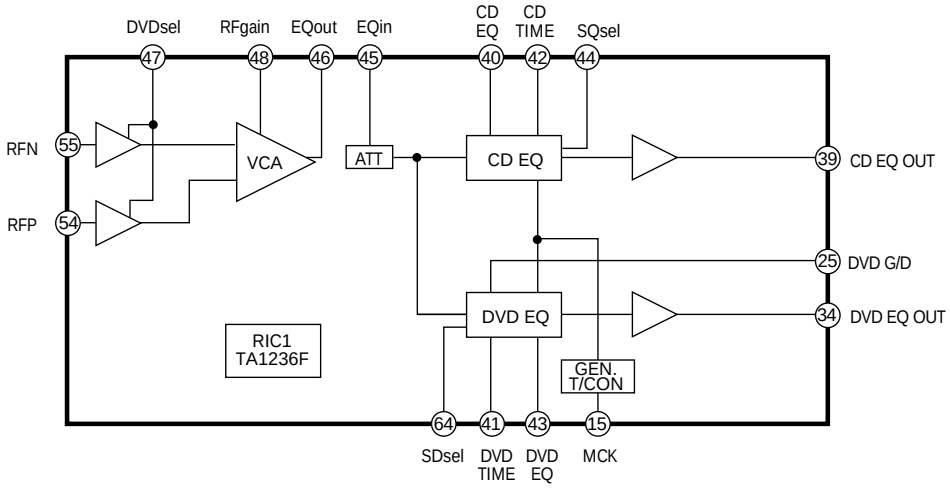



Fig. 2-21

The control parameters of DVD EQ and CD EQ are as follows.

1) DVD EQ control parameter
- DVDEQ(pin 43) : Changes the gain of peak frequency with EQ frequency characteristic. Convert PWM signal, output from TC90A19F, into DC via low-pass filter.
- DVDTIME(pin 41) : Changes the peak frequency with EQ frequency characteristic. Convert PWM signal, output from TC90A19F, into DC via low-pass filter.
- S/Dse1(pin 64) : Changes the peak frequency (like DVD TIME) as 2d control. ( Switched according to regeneration speed ratio of single/double layer).
- MCK(pin 15) : Input the base clock and link the peak frequency with it. The amplitude of MCK might be small (500mVp-p).
- DVDGD(pin 25) : Changes the group delay characteristics with EQ frequency characteristic.

2) CD EQ control parameter
- CD EQ(pin 40) : Changes the gain of peak frequency with EQ frequency characteristic. The constant DC is supplied to a resistive voltage divider.
- CD TIME(pin 42) : Changes the peak frequency with EQ frequency characteristic. The constant DC is supplied to a resistive voltage divider.
- S/Qse1(pin 44) : Changes the peak frequency (such as CD TIME) as 2d control. (Switched according to play linear velocity ratio of quadruple/single rate. Set to '0' because only one rate is vaild in this system).

**Note** : CD and DVD signals are equalized according to the above control parameters ,and then output to CD EQ OUT (pin39) and DVD EQ OUT (pin34). Then, CD signal is transferred to TC9420F, DVD signal is sent to TC90A19F and detected.

## 2-2-2 Description of data processor for DVD

(Including DIC1 and DIC5 protection IC)

1. Outline

The data processor IC for DVD does the following :
1) Converts RF signal to digital, demodulates original signal and corrects errors,
2) PLL circuit to generate the clock for data detection in accordance with play velocity,
3) CLV control circuit to control the rotation rate of disc,
4) DIC5 Protection IC, connected with input/output of data processor, which releases the protection for the protected data (which is then transmitted to video decoder and Micom).

2. Operation

1) Input circuit
RF data equalized in RF stage is AC-coupled via pin 50 and input as 2.1Vpp. Then, the bias voltage becomes 1.65V by means of DC bias in IC.

2) PLL circuit
The input data generates the clock necessary for the PLL circuit. PLL circuit for clock generation generates the phase error signal through RLLD (pin 38), PDOP (pin 37), PDON (pin 36). The loop filter consists of built-in OP Amp and external parts.
The RLLD signal occurs only when the velocity difference between clock and data is large, and it sets the PLL oeprational velocity. RLLD signal doesn't occur at normal play except during searches

3) Data slicer
As the PLL generates the clocks, the slice circuit converts the analog signal to digital. that is, it switches to 1 if greater than regular reference voltage, and to 0 if less. The sliced signal may be observed at pin 34 (ED7) with a scope. If the signal has an error, it is necessary to check that the bias of input RF signal is correct, as well as the condensor at pin 42 (SLCO).

4) CLV circuit]
The signal is input to the circuit which generates DMO and CLV signals to control the rotation of the spindle motor. The control signal is output via pin 54(DMO). Then, the output signal is the 3d signal (a pulse derived from the midpoint voltage). If an error occurs in spindle motor during DVD play, check this signal.

5) Modulation and ID. Sync detection
The signal is synchronized, using the generated clocks, and Sync. signal is detected through Sync. signal detection circuit for modulation and all other signal processes. Sync. signal can't be observed externally, but the interrupt at each 1.4ms cycle may be checked on pin 23 (during normal detection, the interrupt signal is generated periodically). It is difficult to precisely define 1.4ms cycle, because other interrupts are also occuring.
During Sync. detection, the recorded signal is converted to data by means of an 8/16 modulation circuit. The modulated signal is saved in memory, and interfaced externally for error correction.

7) Error correction circuit]
The data saved in external buffer memory after modulation are read by data processor sequentially for error correction. The data with all corrections are output by request of the next stage (video decoder).

8) VBR buffering]
The disc jumps the track repeatedly on waveform while checking each signal during normal play of DVD because it uses the VBR method (completely different from existing CD, video CD, etc). VBR play method enhances the data efficiency to improve the screen quality twofold, by using additional data for complex video and less data for simple video at compression. It saves the data in memory, and if the memory is full, it stops the play instantly to reset. If the data is removed, it repeats play because the play velocity varies according to data compression ratio. This process is known as VBR, and the used memory is known as the track buffer (or VBR buffer). A 4MIT DRAM attached to data processor includes this function.

9) Protection circuit]
Read if protected, and key for protection release from Read-in area (starting at first disc play). These operations are performed by TC6804 automatically.
Protection IC is located between output of data processor and input of video decoder, (the next stage).
it decodes the protected data after recognizing the key information read from disc and data status. If a disc violates the protection method, it stops the operation and reports to Micom.

# 2-3 System control circuit description

## 2-3-1 Outline

The main micom peripheral circuit is composed of 16bit Micom, 2M EPROM for Microcord and data save, 1M SRAM for data read/write on running, 512 byte EEPROM for permanent storage of data needed at power off, MIC4(74AC573) to latch only address in the bus where address and data are mixed, address decoder for selection of external device chip and 20MHz clock oscillator for micom operation. The micom(MIC1, TMP93CS41) mounted in main board analizes the key commands of front panel or instructions of remote control through communication with micom(FIC1, LC86P6232) of front and controls the devices on board to execute the corresponding commands after initializing the devices connected with micom on board at power on.

## 2-3-2 System control block diagram

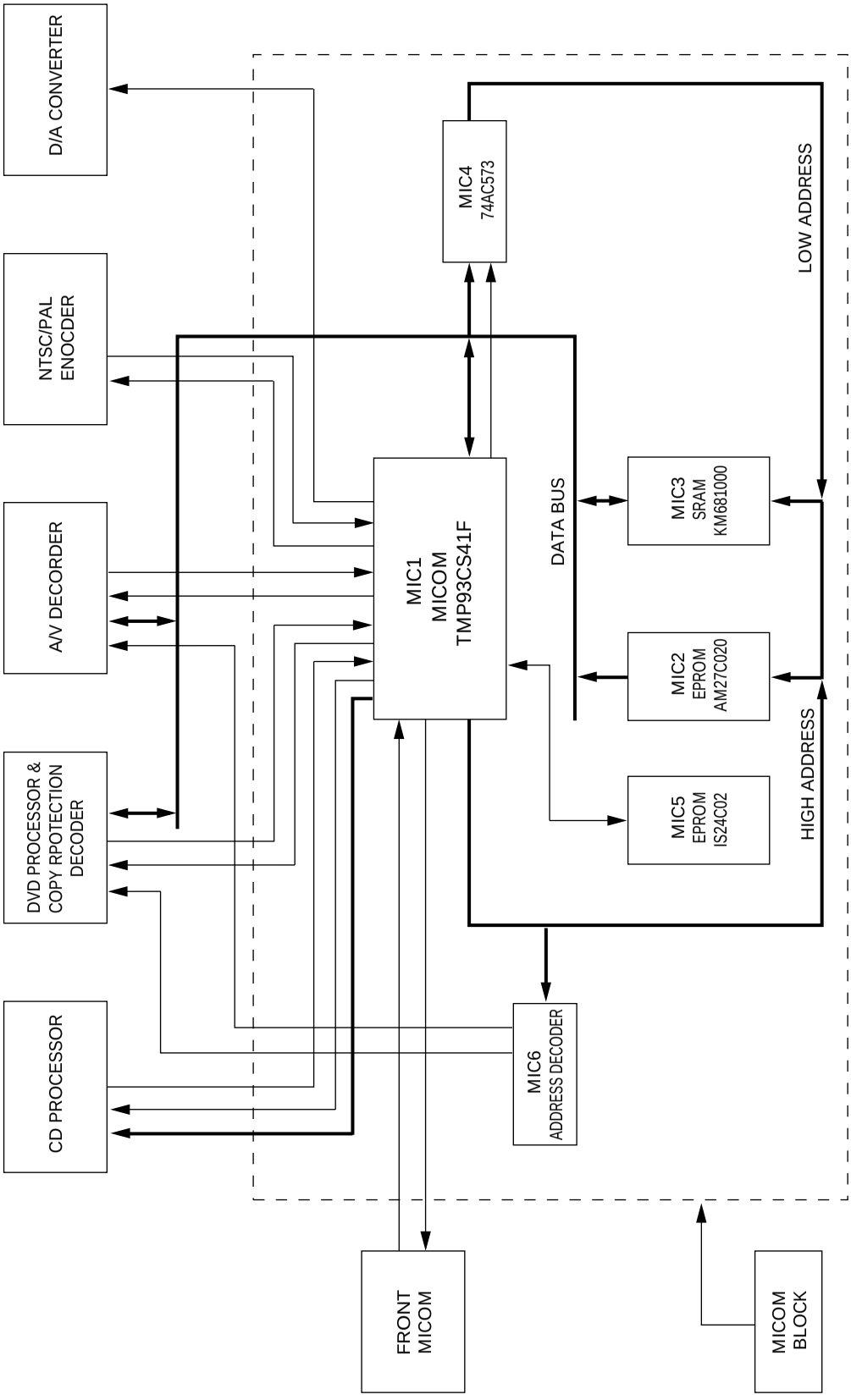
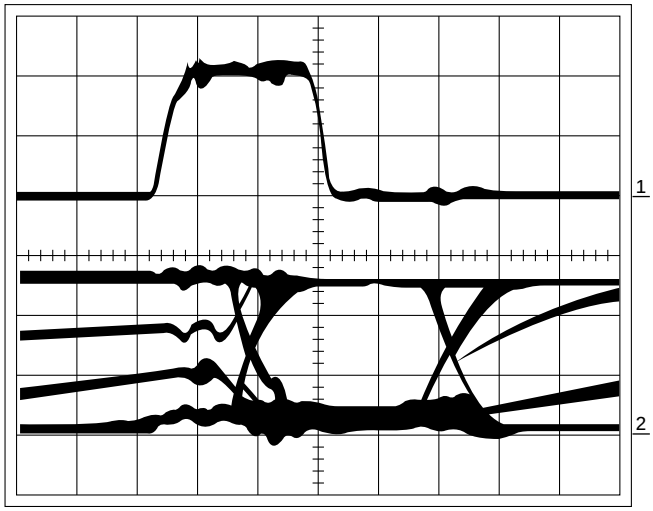



Fig. 2-22

## 2-3-3 Waveform description

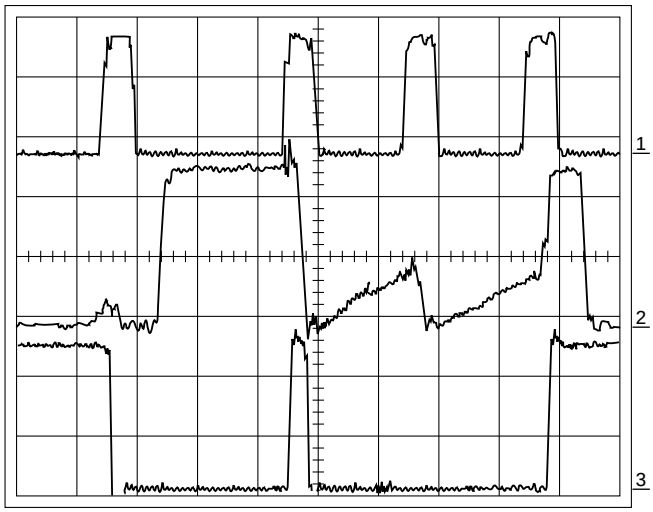
The setup time is approx. 18 nsec. at falling edge of ALE(Address Latch Enable) signal, which has enough hold time.
At power of 5V, the min. setup time of MIC4(TC74AC573) is 5 nsec, and min. hold time is 3 nsec. It can be known that data input condition meets setup time and hold time. The eye part of input data in falling edge of ALE signal corresponds to address on the bus where address and data are mixed.




- CH1 : ALE
  (MIC4-11, Address Latch Enable Signal)
- CH2 : HAD0-9
  (Input data of MIC4, Common bus data)

Fig. 2-23

The inclining and rising part indicate floating range of data bus.
That is, there is no operational problem because micom is time area not to access any devices sharing a common bus. The waveform is shown to incline and rise by pull-up resistance and capacitance on PCB pattern.
When micom accesses each device sharing bus, it falls the chip select signal of corresponding chip to 0(Low) before trial. So to speak, the bus is used by time-division as shown in Fig 2-25, 26. Two and more devices can't be accessed simultaneously.




- CH1 : ALE
  (MIC4-11, Address Latch Enable Signal)
- CH2 : HAD0-7 (MIC4-2 to 9, Input data)
- CH3 : HA0-7 (MIC4-19 to 12, Output data)

Fig. 2-24

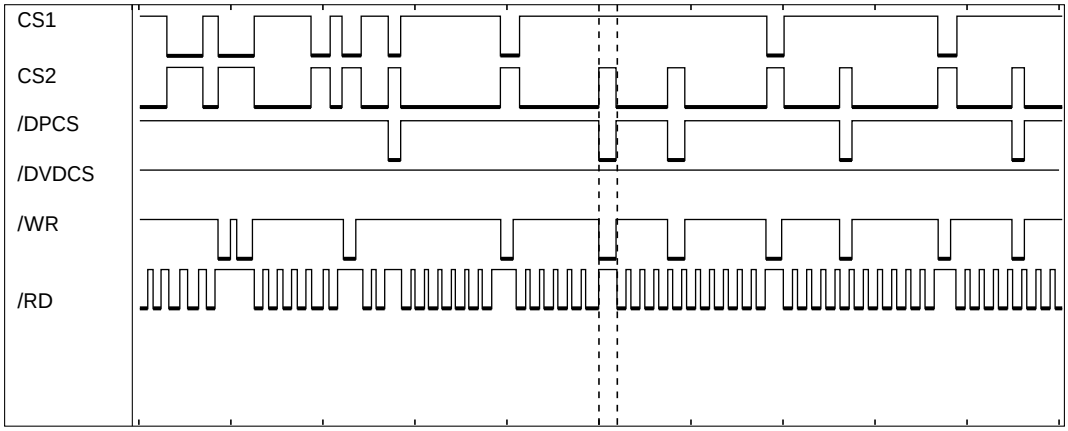



Fig. 2-25

- CH1 : CS1 (MIC3-22, SRAM CHIP SELECT)
- CH2 : CS2 (MIC2-22, EPROM CHIP SELECT)
- CH3 : DPCS (DIC6-76, COPY PROTECTION DECODER CHIP SELECT)
- CH4 : DVDCS (VIC1-175, A/V DECODER CHIP SELECT)
- CH5 : WR (MIC1-73, MICOM OUTPUT WRITE SIGNAL)
- CH6 : RD (MIC1-72, MICOM OUTPUT READ SIGNAL

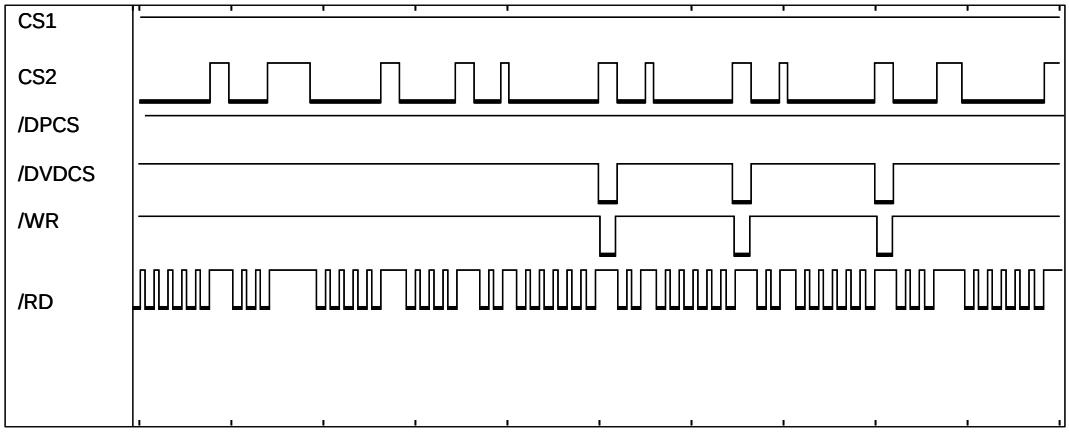



Fig. 2-26

- CH1 : CS1 (MIC3-22, SRAM CHIP SELECT)
- CH2 : CS2 (MIC2-22, EPROM CHIP SELECT)
- CH3 : DPCS (DIC6-76, COPY PROTECTION DECODER CHIP SELECT)
- CH4 : DVDCS (VIC1-175, A/V DECODER CHIP SELECT)
- CH5 : WR (MIC1-73, MICOM OUTPUT WRITE SIGNAL)
- CH6 : RD (MIC1-72, MICOM OUTPUT READ SIGNAL)

# 2-4 Signal control chip DIC1, DIC6 description

## 2-4-1 Outline

DIC1(TC90A19F) performs PLL(Phase Locked Loop), Sync detection, demodulation and error correction after converting RF signal inputted at DVD regeneration into digital data.
DIC6(TC6804F) receives signal-processed data in DIC1 and releases digital copy protection.
TC90A19F uses external memory(4M DRAM) as buffer as well as for error correction and carries out variable bit rate transfer function. VBR function uses the external buffer as buffer to absorb the difference of transfer rate occurring because the transfer rate of disk playback is faster than data transfer rate demanded by MPEG decoder(Video/Audio Signal Process Chip).
In case of general disk refresh, the memory is almost filled up periodically. It is because Write rate to memory after disk playback and signal process is faster than Read rate of MPEG decoder. When the memory is filled, the fact is reported by interrupt to main micom, which controls the servo and kicks back the pick-up to the previous track after memorizing the last data read from disk until now. It takes some times to jump to the previous track and return to the original position(jump location) again. The full memory will have an empty space because MPEG decoder reads out data of memory.
When the memory has an empty space, where data can be processed and written and the pick-up correctly gets to the original location(kick back location) again, it reads data again and avoids the interrupt of data read previously.
The basic operation repeats to perform disk data read --> memory full --> move pick-up to previous track --> disk data read --> memory full --> move pick-up to previous track as described above.

## 2-4-2 System control block diagram

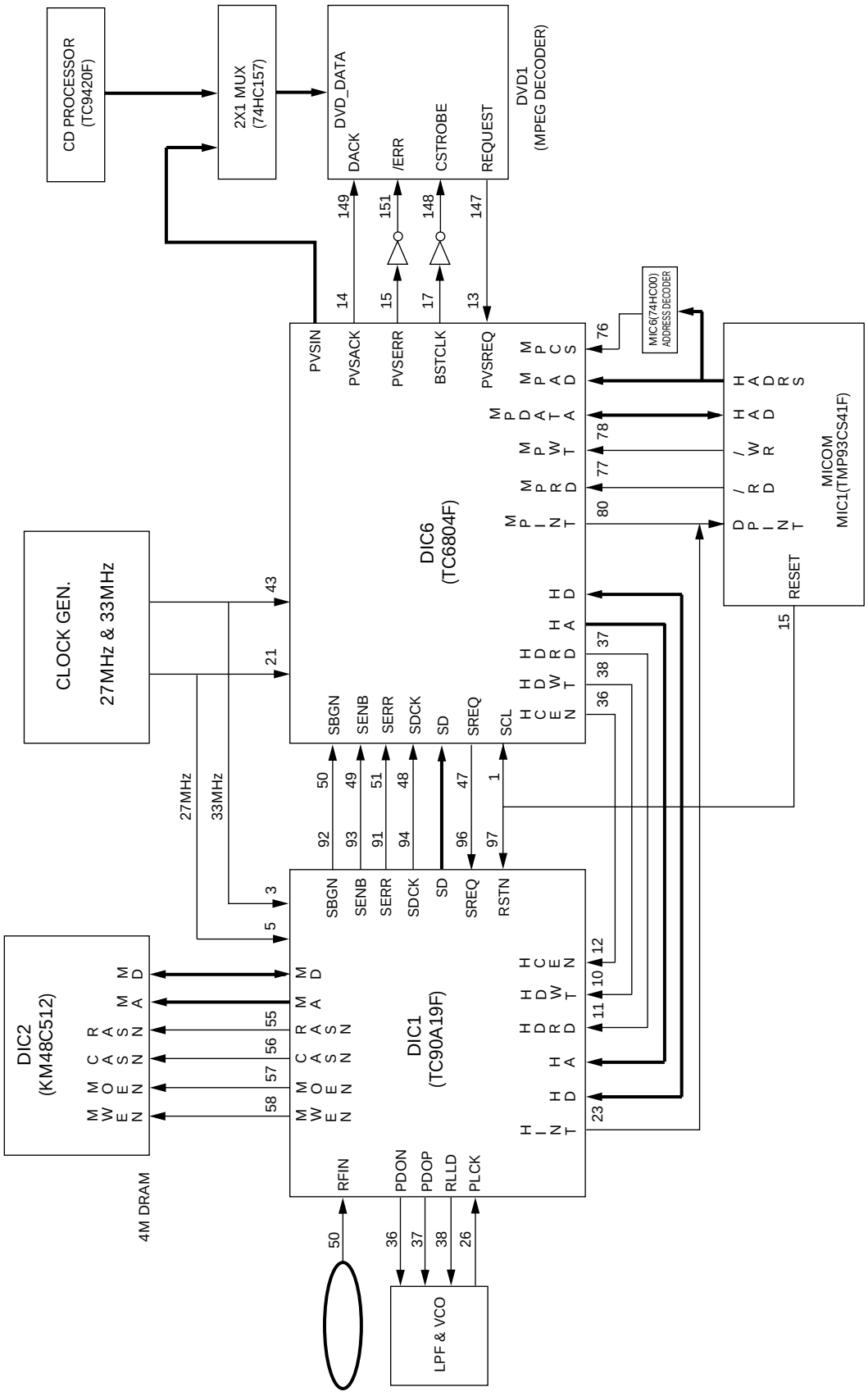
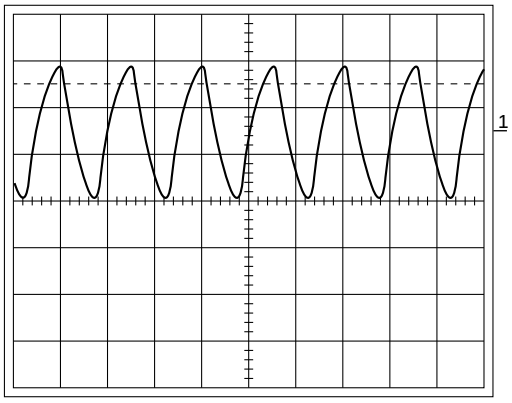



Fig. 2-27

## 2-4-3 Waveform description

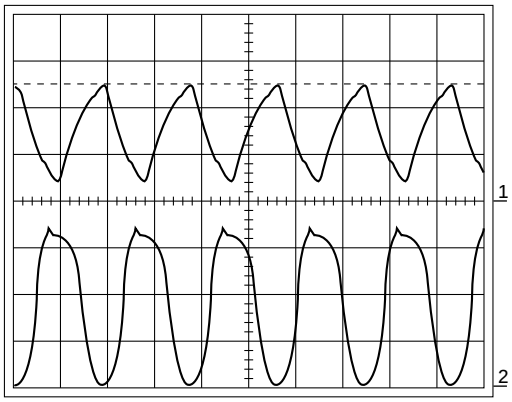
It is used for internal digital signal process as 33MHz clock input waveform of DIC1 (TC90A19F) and carries out swing in 1.4V level on the basis of DC level 1.65V.




- CH1 : DPCK1(DIC1-3, 33MHz input clock)

Fig. 2-28

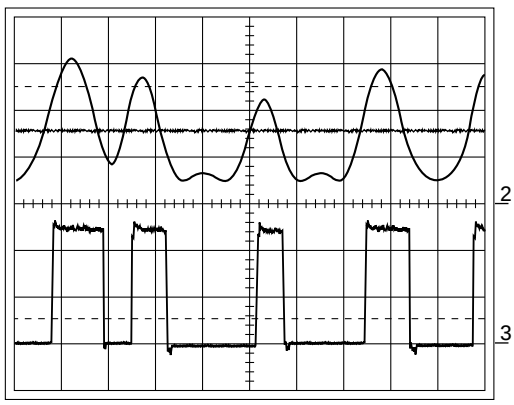
It is used for PLL and CLV control as 27MHz servo clock input and output waveform of DIC1. The input swings in approx. 2V of amplitude and the output swings in 3.3V.




- CH1 : SVCKI (DIC1-5)
- CH2 : SVCKO (DIC1-6)

Fig. 2-29

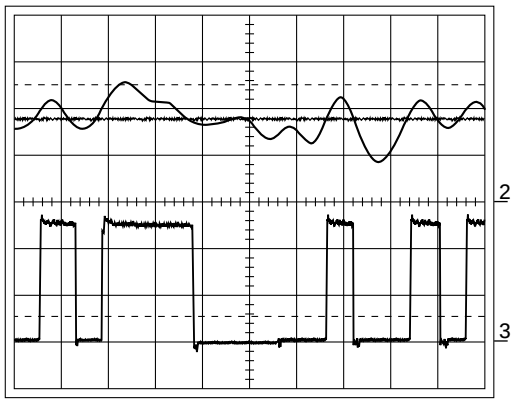
CH1 is RF signal waveform inputted to DIC1 and inputted with 2.5V of amplitude on the basis of approx. 1.65V level. If RF signal is higher than slice level, CH2 of slice level is cut digital 1(HIGH) and if lower, digital 0(LOW) and converted into digital data. CH3 indicates a waveform that RF signal is cut by slice level and converted into digital data.




- CH1 : RFIN(DIC1-50, RF Input signal)
- CH2 : SLCO (DIC1-42, Slice level)
- CH3 : ED7 (DIC1-34, Sliced data of RF signal)

Fig. 2-30

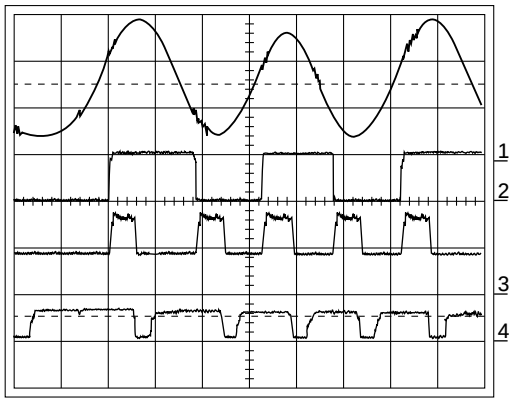
CH1 is RF signal waveform at refresh the error area of disk. It shows RF waveform swing lower than slice level. At the end, this part is displayed as error which is recovered to the original data by error correction signal of DIC1.




- CH1 : RFIN(at refreshing small error area of disk)
- CH2 : SLCO (Slice level)
- CH3 : ED7 (Sliced and outputted data of RF signal)

Fig. 2-31

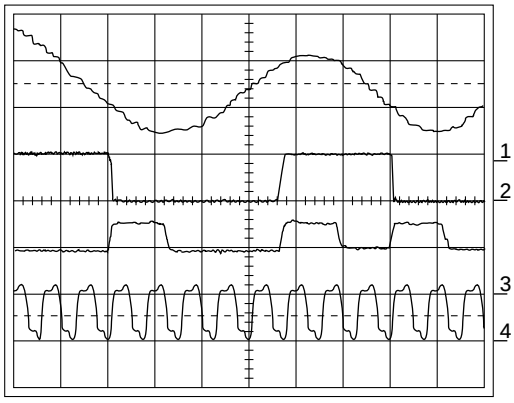
It shows error signal output, comparing PLL clock and phase difference in DIC1 when RF signal is inputted. The phase difference signals is inputted into VCO after summing in external PLL circuit of DIC1. VCO changes PLL clock frequency according to input voltage.
The middle frequency of external PLL circuit is approx. 27MHz and a clock(DIC1-26) swung by PLL on the basis of 27MHz may be shown at DVD refresh.




- CH1 : RFIN(DIC1-50, RF Input signal)
- CH2 : SLCO (DIC1-34, Sliced data)
- CH3 : PDON (DIC1-36, Phase difference signal)
- CH4 : PDOP (DIC1-37, Phase difference signal)

Fig.2-32

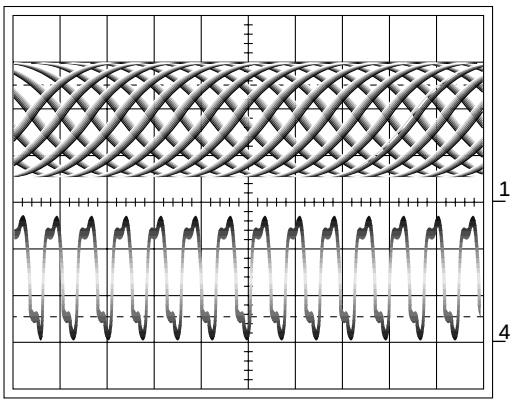
PLL lock at DVD playback




- CH1 : RFIN(DIC1-50, RF Input signal)
- CH2 : SLCO (DIC1-34, Sliced data)
- CH3 : PDON (DIC1-36, Phase difference signal)
- CH4 : PLCK (DIC1-26, PLL clock)

Fig. 2-33

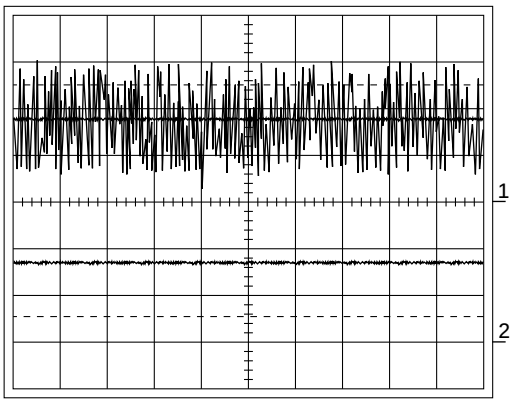
It shows PLL clock swung on the right and left on the basis of input RF signal, PLL clock and trigger at DVD playback. The eye of RF signal is open in PLL lock state.




- CH1 : RFIN(DIC1-50, RF Input signal) (Vp_p is approx. 2.5V)
- CH4 : PLCK (DIC1-26, PLL clock)

Fig. 2-34

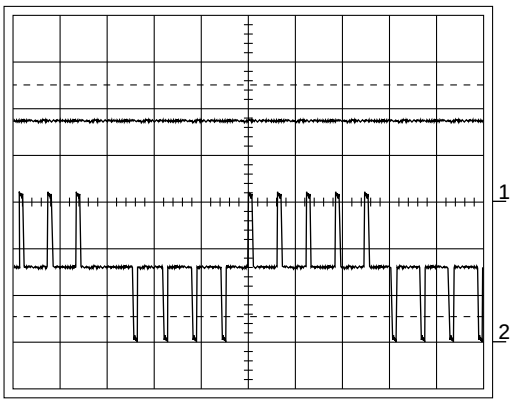
It shows RF signal and RLLD signal waveform at DVD refresh and RLLD waveform is regular as 1.65V. If a serious error occurs in disk, RLLD signal is outputted as correction signal and enters PLL control system after summing with phase difference signal.




- CH1 : RFIN(DIC1-50, RF Input signal)
- CH2 : RLLD (DIC1-38, RLLD signal at disk refresh)

Fig. 2-35

RLLD signal is ouputted at disk halt or occurrence of serious error.




- CH1 : RFIN(DIC1-50, RF Input signal)
- CH2 : RLLD (DIC1-38, RLLD at disk halt or occurrence of serious error)

Fig. 2-36

Because RF signal, external VCO input voltage and VCO control voltage swings terribly at disk halt, PLL ouput clock changes largely.(PLL not unlock state)

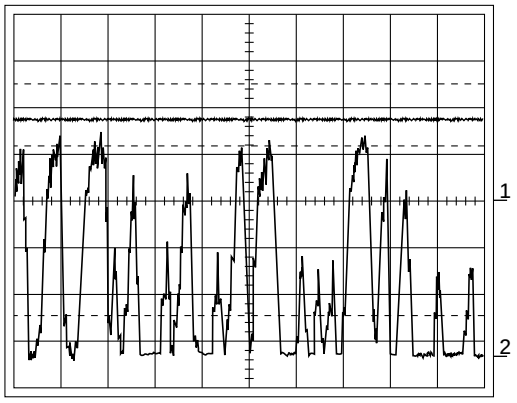



Fig. 2-37

- CH1 : RFIN(DIC1-50, RF Input signal at disk halt)
- CH2 : VCO control signal (DD1-3, Variable capacitance diode)

The input voltage of VCO becomes a regular voltage level(approx. 3.59V in Figure) at DVD playback and VCO outpus PLL clock depending on this control voltage. The input voltage of VCO swings a little and appears as frequency variation of VCO as much as change amount. As the control voltage of VCO is higher, PLL clock frequency becomes high.

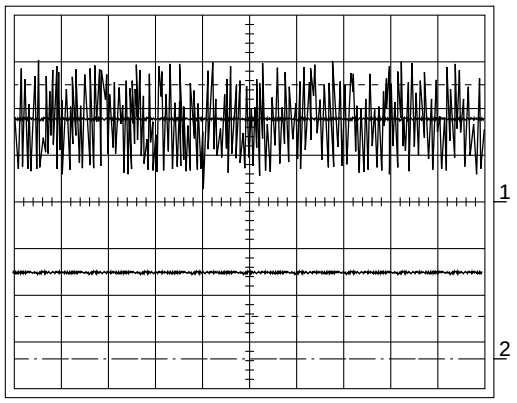



Fig. 2-38

- CH1 : RFIN(DIC1-50, RF Input signal at disk playback)
- CH2 : VCO control signal (DD1-3, Variable capacitance diode)

When the inputted RF signal is error-correction processed in DIC1 and inputted into DIC6, it is processed to release the digital copy protection. The digital copy protection released data makes the acknowlegde signal of CH2 LOW and outputs data(CH4)
when MPEG decoder(Video, Audio signal process chip) falls the request signal to 0(LOW) and demands data. The data acknowledge signal of CH2 and data of CH4 are synchronized with BSTCLK(CH3) and outputted. BSTCLK of CH3 is made by division of 27MHz into 16.

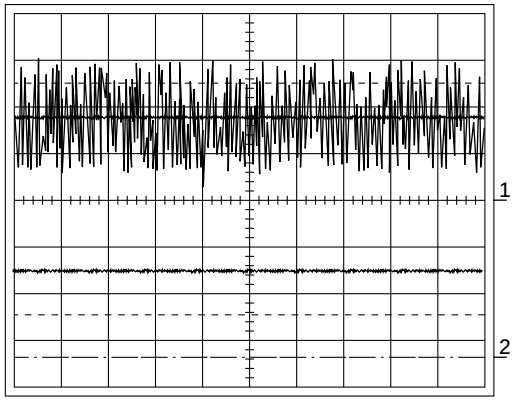



Fig. 2-39

- CH1 : PVSREQ (DIC6-13, Data request signal from DVD1)
- CH2 : PVSACK (DIC6-14, Output data acknowledge signal)
- CH3 : BSTCLK (DIC6-17, Output clock)
- CH4 : PVSIN (DIC6-5 to 11, Output data)

DIC6 shares the data bus of micom with other devices(DVD1, EPROM, SRAM). CH2 shows the measurement of a signal line of data bus. The inclining and rising part in CH2 indicates high impedence state after data bus floating. The data bus is pulled up by 4.7K resistance.

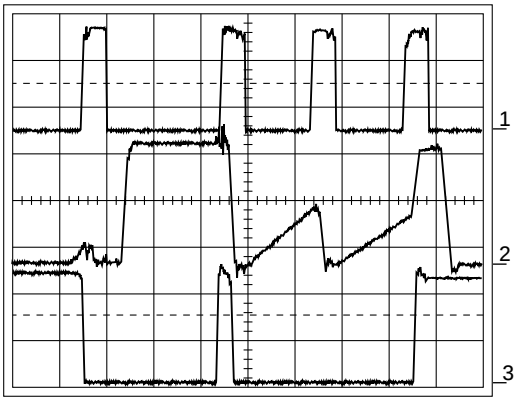



Fig. 2-40

- CH1 : ALE (MIC4-11, Address latch enable signal)
- CH2 : HAD0-7 (MIC402 to 9, Main micom address and data multiplexed bus)
- CH3 : HA0-7 (MIC4-19 to 12, Main micom addreess 0-7)

It shows access in fast page mode as waveform when DIC1 accesses external memory(4Mbit DRAM) at DVD refresh.

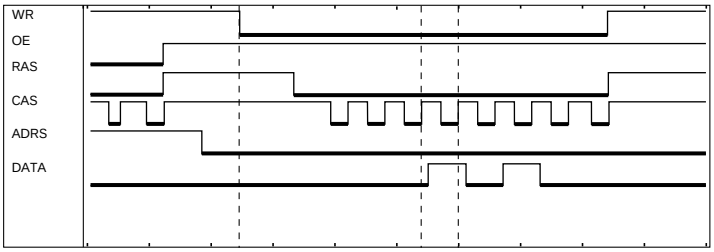



Fig. 2-41

- WE : Write enable(DIC2-7)
- OE : OUTPUT ENABLE (DIC2-22)
- RAS : RAW ADDRESS STROBE (DIC2-8)
- CAS : COLUMN ADDRESS STROBE (DIC2-23)
- ADRS : ADDRESS
- DATA : DATA

It shows the external memory refresh of DIC1 and uses Cas Before Ras Refresh.

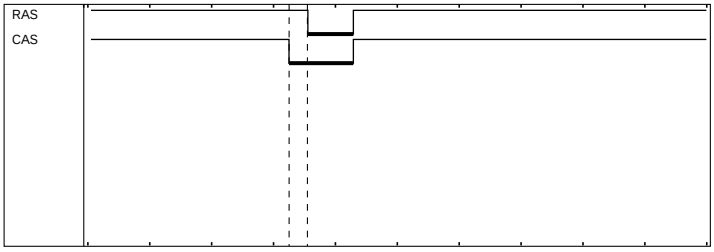



Fig. 2-42

- DIC2 (4MDRAM) REFRESH TIME

It shows refresh per approx. 31 usec as measurement of refresh waverform outputted by DIC1 in large timing.

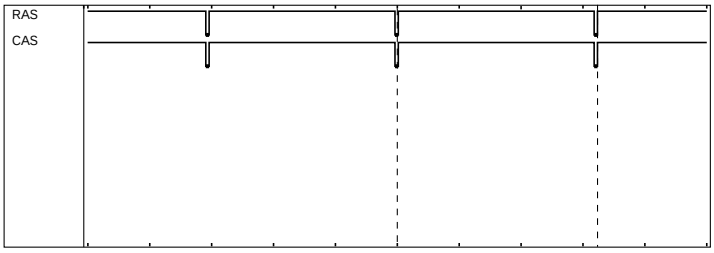
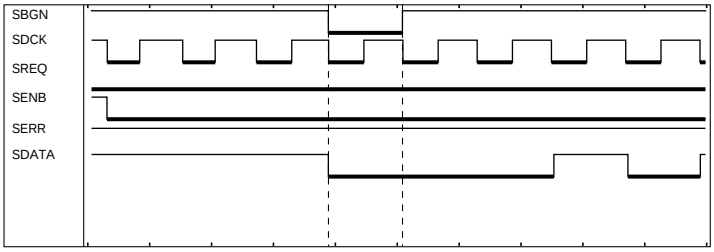



Fig. 2-43

Refresh time(PERIOD) of DIC2(4MDRAM)

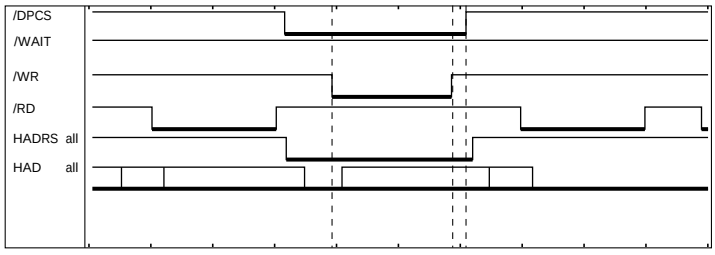
It measures the timing that data processed in DIC1 at DVD playback enters DIC6




- CH1 : SBGN (DICI-92, SECTOR BEGIN)
- CH2 : SDCK (DICI-94, CLOCK)
- CH3 : SREQ (DICI-96, DATA REQUEST)
- CH4 : SERR (DICI-91, DATA ERROR)
- CH5 : SDATA (DICI-81~84, 87~90, DATA)

Fig. 2-44

It shows the timing of control signal, address and data bus when micom accesses DIC1 and DIC6.
So to speak, timing at writing a value in the internal register of DIC1 and DIC6.




- CH1 : DPCS (DIC6-76, TC90A19/TC6804F chip select)
- CH3 : WR (DIC6-78, TC90A19F/TC6804F register write)
- CH4 : RD (DIC6-77, TC90A19F/TC6804F register read)
- CH5 : HADRS (DIC6-74, 75, Micom address bus)
- CH6 : HAD (DIC6-65 to 72, Micom data bus)

Fig. 2-45

It shows a waveform that DIC1 requests a management to micom by interrupt generation.
Micom recognizes the interrupt and writes a value in register of DIC1 to respond (instruction) for interrupt.
Micom accesses DIC1 five times in Figure. Micom recognizes the operation of chip and makes a necessary instruction after receiving the interrupt generated in DIC1 and DIC6 and accessing the corresponding chip.
The instruction is executed by acessing the corresponding chip and writing a value(digital) into register.
Micom accesses DIC1 via DIC6.
The block diagram shows that the same type as signal line connecting DIC6 and micom is composed between DIC1 and DIC6. That is, DIC1 is interfaced with micom through DIC6.

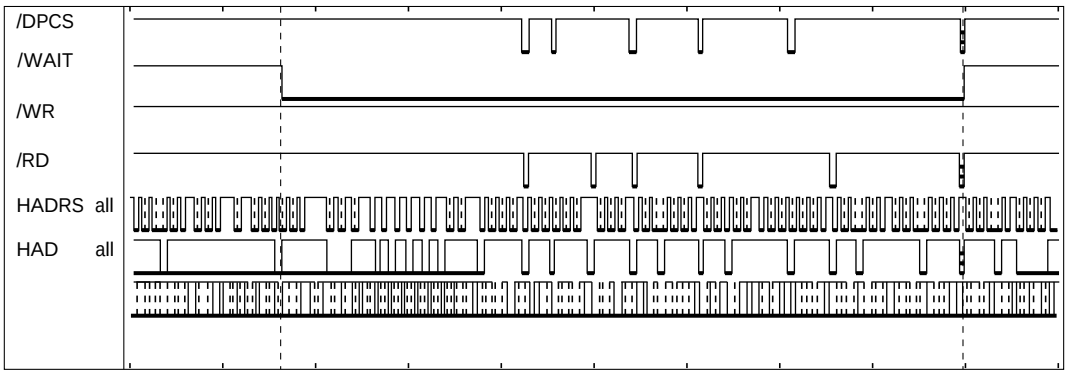



Fig. 2-46

- CH1 : DPCS (DIC6-76, TC90A19/TC6804F chip select)
- CH2 : DPRINT (DIC1-23, DIC6-80, TC90A19F/TC6804F interface)
- CH3 : WR (DIC6-78, TC90A19F/TC6804F register write)
- CH4 : RD (DIC6-77, TC90A19F/TC6804F register read)
- CH5 : HADRS (DIC6-74, 75, Micom address bus)
- CH6 : HAD (DIC6-65 to 72, Micom data bus)

# 2-5 SERVO circuit

## 2-5-1 Outline

SERVO system of DVD is divided into Focusing SERVO, Tracking SERVO, SLED Linked SERVO and CLV SERVO(DISC Motor Control SERVO).

1. Focusing SERVO
   Focuses the optical spot output from object lens onto the disc surface. Maintains a uniform distance between object lens of Pick-up and disc (for surface vibration of disc).

2. Tracking SERVO
   Make the object lens follow the disc track in use of tracking error signal (created from Pick-up).

3. SLED Linked SERVO
   When the tracking actuator inclines outwardly as the object lens follows the track during play, the SLED motor moves slightly (and counteracts the incline).

4. CLV SERVO (DISC Motor Control SERVO)
   Controls the disc motor to maintain a constant linear velocity (necessary for RF signal).

## 2-5-2 SERVO system block diagram

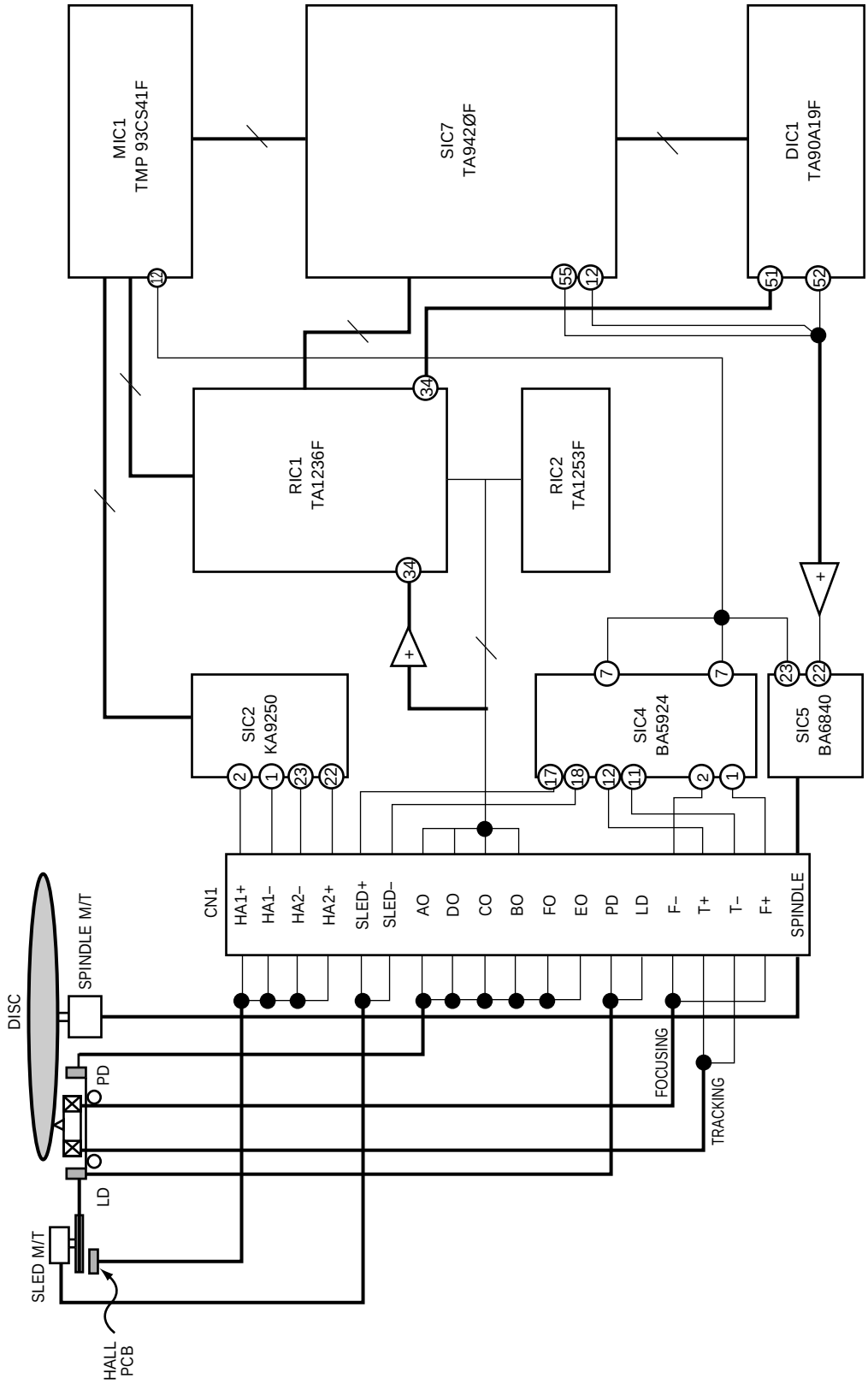



Fig. 2-47

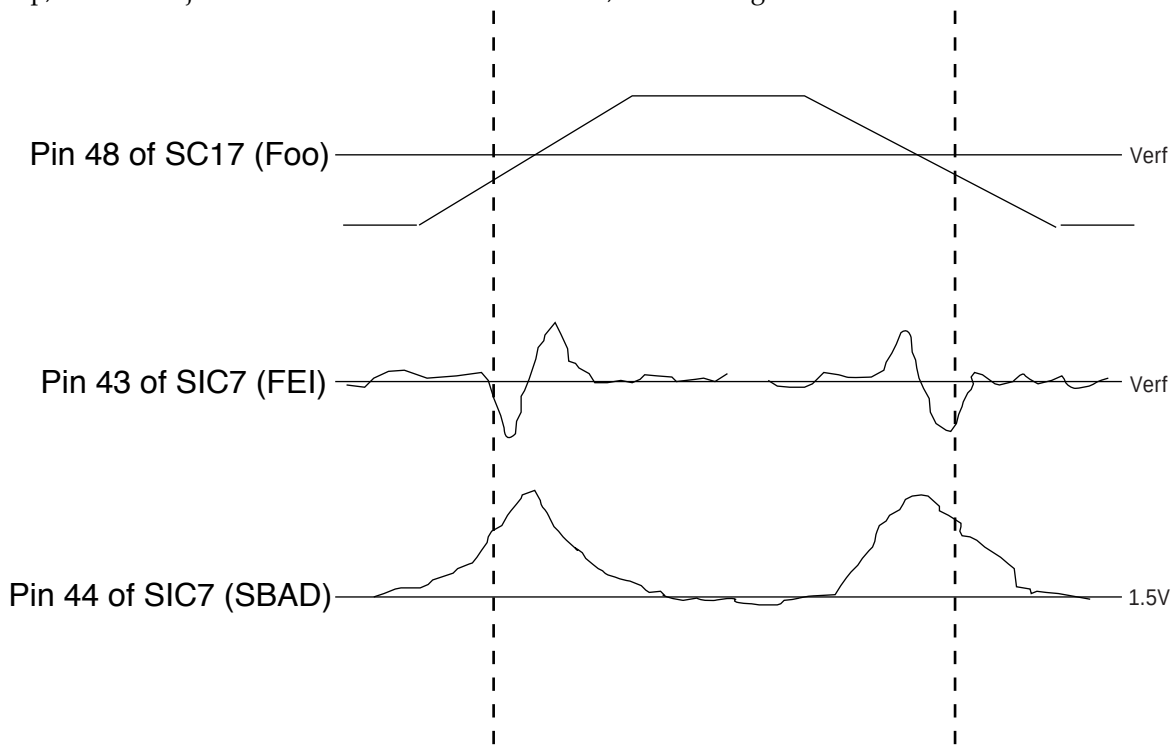
## 2-5-3 Operation

### 2-5-3(a) FOCUSING SERVO

1. Focus input

The focus loop is changed from open loop to closed loop, and the triangular waveform moves the object lens up and down (at pin 48 of SIC7 during Focus SERVO ON.) At that time, S curve is input to pin 43 of SIC7.

SBAD (pin 44 of SIC7) signal, summing signal of PD 1, B, C, D, is generated by S curve, and zero cross(2.1V) point occurs when S curve is focused and SBAD signal exceeds a preset,constant value. The focus loop is changed to closed loop, and the object lens follows the disc movement, maintaining a constant distance from the disc.




(these operations are same in CD and DVD).

Fig. 2-48

2. Play

When focus loop closes the loop during focus servo on, both pin 43 and pin 48 of SIC7 are controlled by VREF voltage(approx. 2.1V), and pin 1, 2 of SIC4 are approximately 4.5V.

### 2-5-3(b) TRACKING SERVO

1. Normal play mode

1) For DVD
Composite : The signal output from PD A, B, C, D of Pick-up, the tracking error signal (RIC2 pin 14) uses the phase difference of A+C and B+D in RIC2, and inputs to terminal 8 of RIC1. The signal is output to RIC1 pin 21, and input to SIC7 pin46(TEI). Then, it is output to SIC7 pin 49 via digital equalizer, and applied to the tracking actuator through SIC4. Pins 46, 49 of SIC7 are controlled by VREF(approx. 2.1V) during normal play.
Meanwhile, DVD repeats the track jump from 1 to 4 in inner direction at normal play ( because data- read speed from disc is faster than data output speed on screen).

2) For CD, VCD
Receive the signal output through E, F of Pick-up, from RIC1, differently from DVD and make the tracking error signal through RIC1 pin21. The tracking error signal is similar to DVD.

2. SEARCH Mode :

Search mode : Fine seek,(Moving the tracking actuator slightly little below 255 track) and coarse search, moving much in use of sled motor. The coarse search will be described in sled linked servo and now, the fine seek is explained shortly.
If the object lens is located near target, cut off the tracking loop and give the control signal as many as desired count to move the tracking actuator via SIC7 pin 49 terminal(TRO).

### 2-5-3(c) SLED LINKED SERVO

1. Normal play mode

Move SLED motor slightly by means of PWM signal in SIC7 pin 54, as the tracking actuator moves along with track during play. Control to move the entire Pick-up as the tracking actuator moves.

2. Coarse serach mode

In case of long-distance search(such as chapter serach), pin 48 uses sled FG (SIC2 pin 19, which is generated) by rotation of sled motor via hall PCB. Then, read ID and compute the existing track count after input of next track. If the existing track count is within fine seek range, tracking begins using fine seek.

### 2-5-3(d) CLV SERVO(DISC MOTOR CONTROL SERVO)

1. For DVD mode

Input RF signal (from Pick-up) to DIC1 pin50. Detect SYNC signal from RF in DIC1, and output PWM signal to DIC1 pin 54 for constant linear velocity.

2. For DC, VCD mode

Input RF signal (from Pick-up) to SIC7 pin 36, Detect SYNC signal from RF in SIC7, and output PWM signal to SIC7 pin 55 for constant linear velocity.

# 2-6 A/V decoder and output circuit description

## 2-6-1 Outline

VIC1(A/V decoder, CL61209P) transfers video data to VIC3(PAL/NTSC digital encoder, STV0119) and audio data to AIC3(PCM1720), AIC9(PCM1720), AIC14(PCM1723), KIC3(PCM1710, Audio D/A converter) after receiving and decoding A/V signal compressed from DIC6(Digital copy guard, TC6804AF) and SIC7(Servo processor, TC9420). VIC31 performs RGB encoding, copy guard processing and D/A conversion for the inputted signal and the converted analog video signal is outputted to exterior via amplifier, low pass filter and buffer of back analog part. The audio signal is D/A converted via AIC3, AIC9, AIC14 and KIC14, too and outputted to exterior through analog signal process similar to video signal.

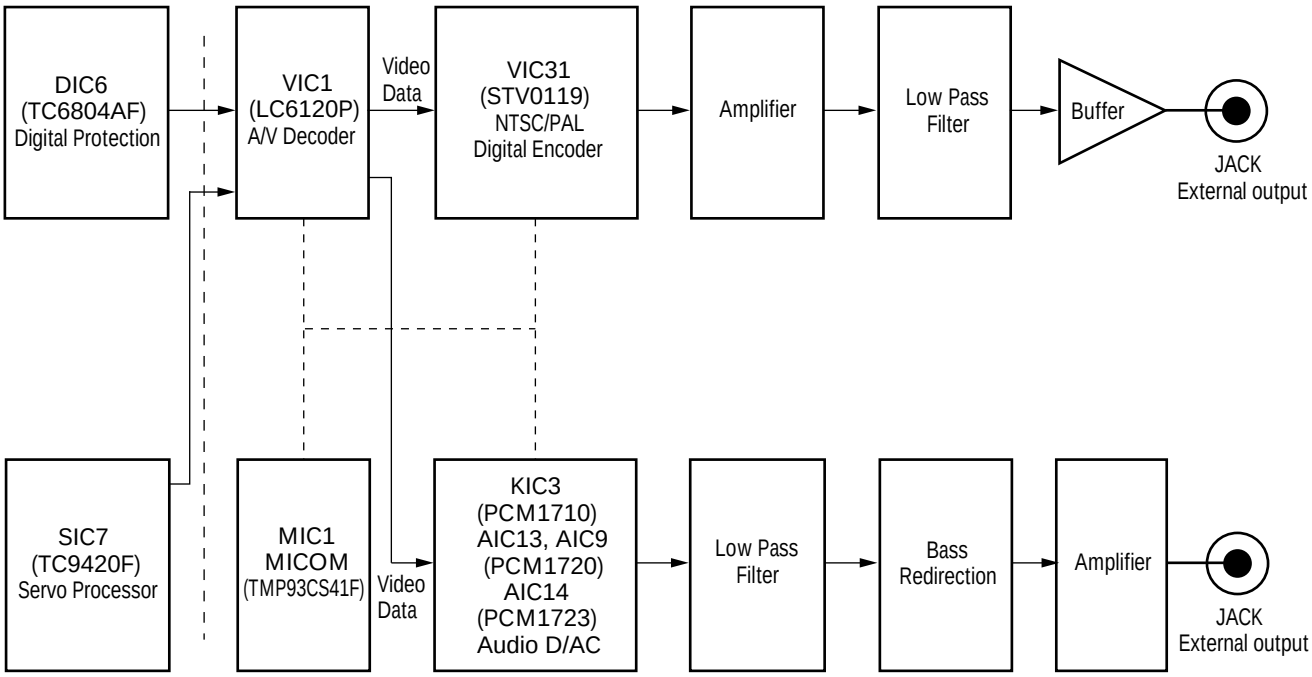



Fig. 2-49 A/V decoder and output block diagram

1. A/V decoder VIC1(CL6120P)

VIC1 receives DVD data compressed from DIC6(Digital protection GA) and VCD and CD data compressed from SIC7(Servo processor) for decoding. VIC8 and VIC9(74HC157, Digital mux.) are used to select one out of two types of signals and the control signal is DVD_SEL signal inputted from pin 83 of main micom. DRAM(VIC3, 4, 5, 6, 7 ; KM416C254DJ-6) of 20Mbytes is used for decoding data storage and EPROM(VIC2 : AM27C4096-120) of 4Mbytes is used to save the decoding program. The signals of PVSREQ, BSTCLK, PLRERR, PVSACK, etc. indicate a decoding state during DVD refresh and help a smooth decoding for communication with DIC6.

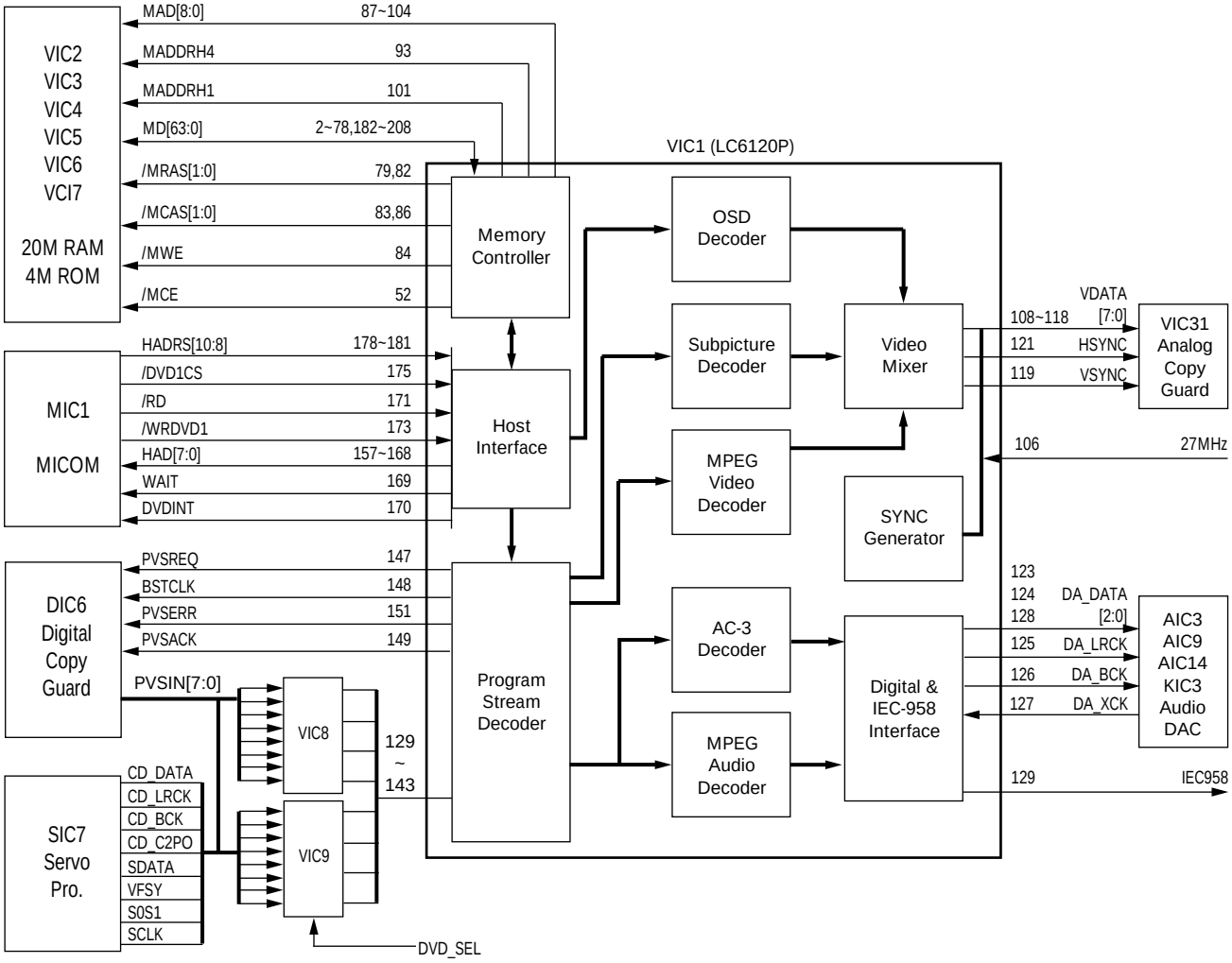



Fig. 2-50 A/V decoder VIC1(LC6120P) signal

2. NTSC/PAL digital encoder(STV0119)

A/V decoder receives 8 bit digital video signal(VDATA[7..0]) of ITU-R656 format, HSYMC and VSYNC from VIC1(CL6120P). When CR/CB/Y signal muxed ITU-R656 format is inputted, first demuxing is performed to release the format. The demuxed signal obtains each RGB/Y/C signal via RGB encoding, uminance processing and chroma processing. At that time, a signal transformation and addition are made by copy guard processing and obstruct the normal signal copy.
The composite signal is formed by addition of luminance and chrominance signal among them. The above signals select RGB or Y/C/CVBS by means of switch and are outputted out of chip through DAC.

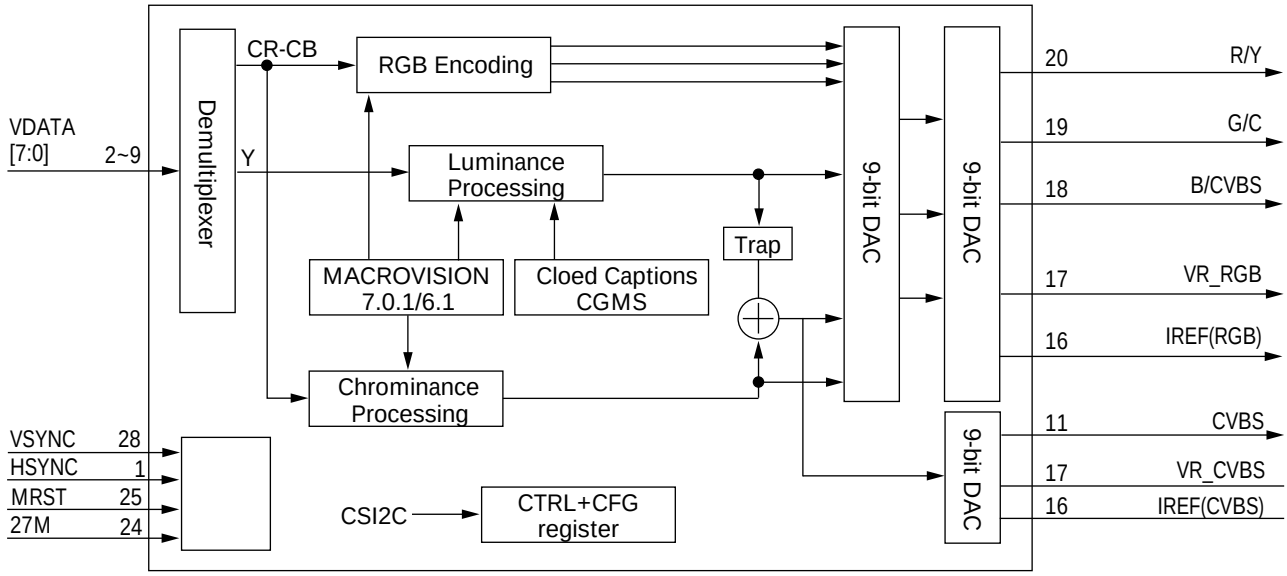



Fig. 2-51 VIC3(STVO119) internal block diagram

3. Amplifier

VQ2, VQ8, VQ14 and VQ18 peripheral circuits are amplifer parts to set the video signal outputted from STV0119 to rated output level. VR57 is load resistance demanded by STV0119 and the gain is determined by resistance ratio interfaced with collector and emitted of each transistor.

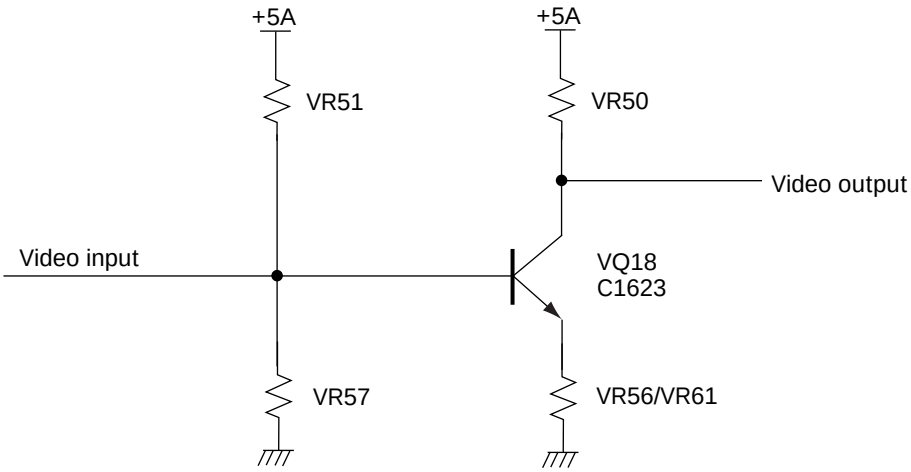



Fig. 2-52

4. Low pass filter VFLT2, VFLT4

VFLT2 and VFLT4 remove quantization noise occurring in the course of D/A conversion as low pass filter with cut-off frequency of 6.75MHz.

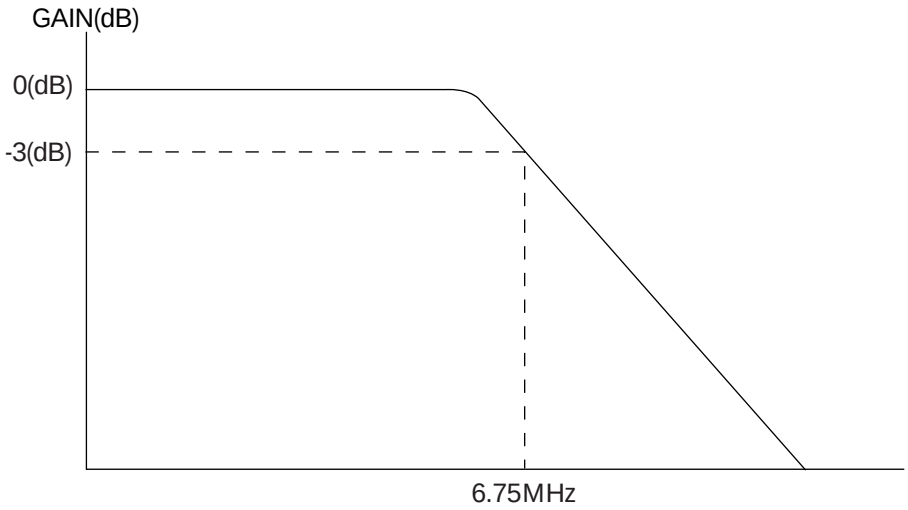



Fig. 2-53 Frequency features of VFLT2/VFLT4

5. Switch

This system selects and outputs RGB or Y/C by register setting of STV0119. If Y/C is selected, Y/C signal is outputted to Y/C jack and RGB jack. These signals are abnormal and had better not to be outputted, seeing in RGB jack. It is same at RGB output. So, analog switch VIC32(14053) is used.

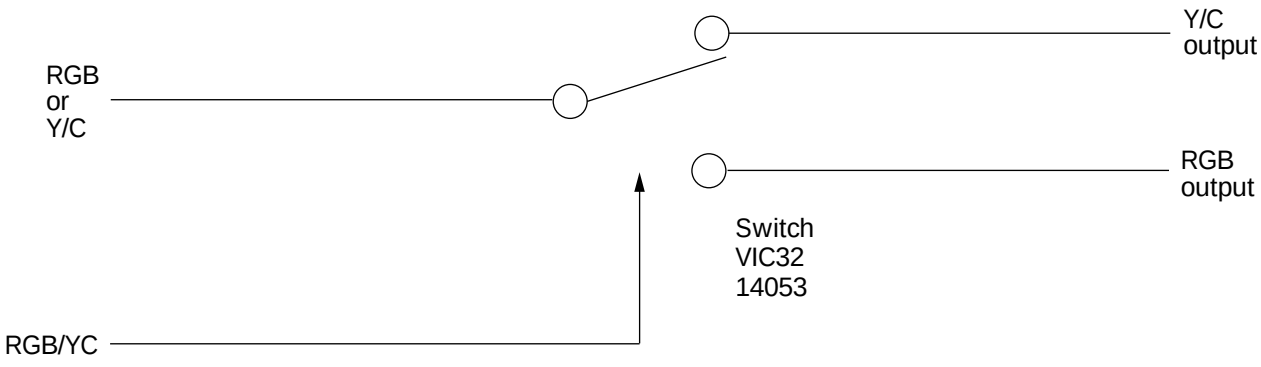



Fig. 2-54 RGB, Y/C switching

# 2-7 Audio circuit description

## 2-7-1 Outline

The audio data transmitted from A/V decoder(VIC1:LC6120P) are converted into analog signal via audio D/A converter and outputted through power filter and amplifier. DVD audio is outputted after division into two cases that only 2 channels(L/R channel) are used and 5.1 channel of AC3 is used. CD and VCD are outputted with only 2 outputs(L/R channel).
If DVD of 2 channels is used, rear L/R channel, center channel and subwooder channel are mixed and outputted in 2 channels. CD and VCD are outputted only in 2 channels in stereo.
The digital signals(IEC-958 Output) outputted from A/V decoder are outputted to digital amp and AC-3 amp through optical jack(opt) and RCA jack(RC45).

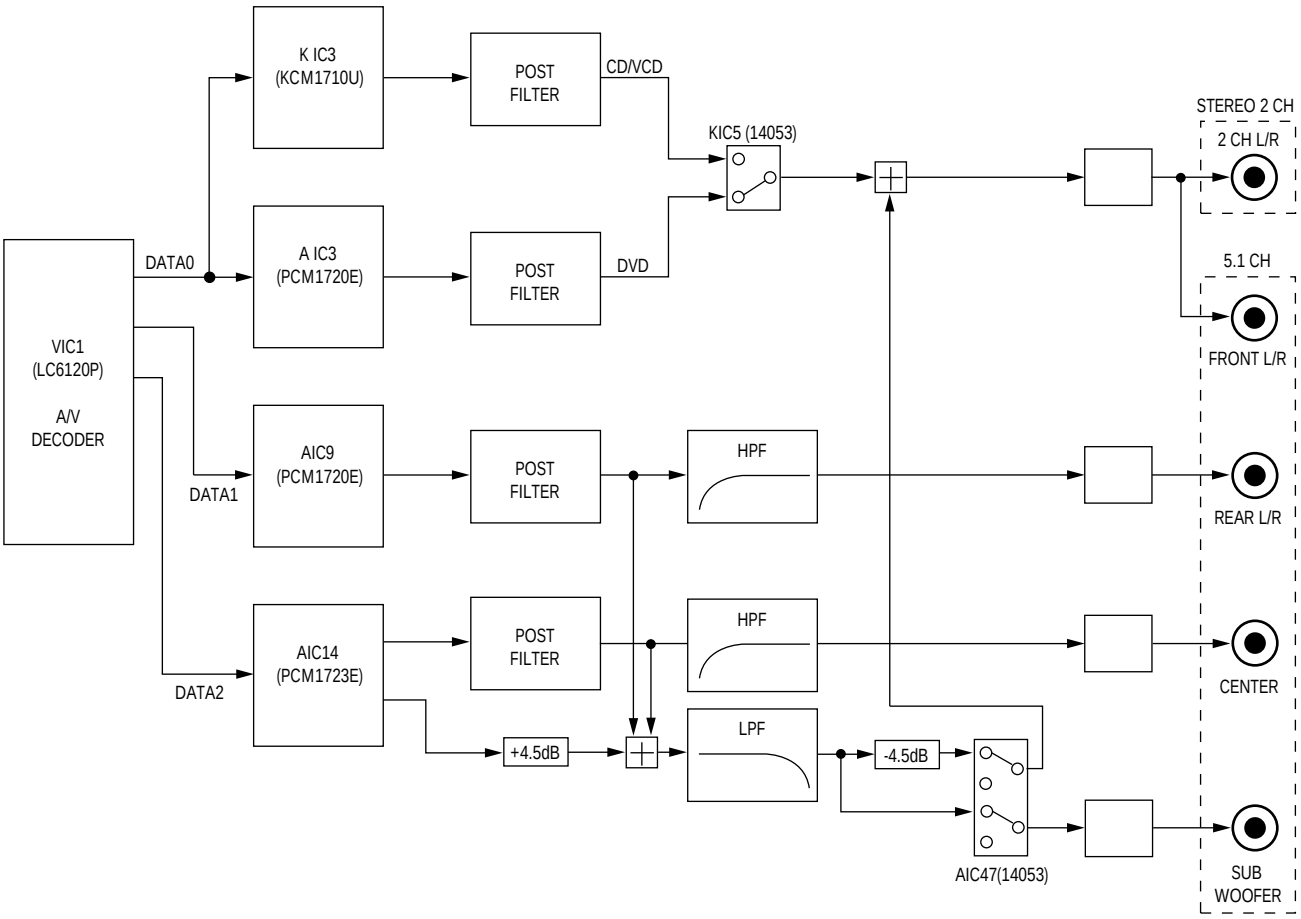



Fig. 2-55 Audio output block diagram

## 2-7-2 DVD audio output

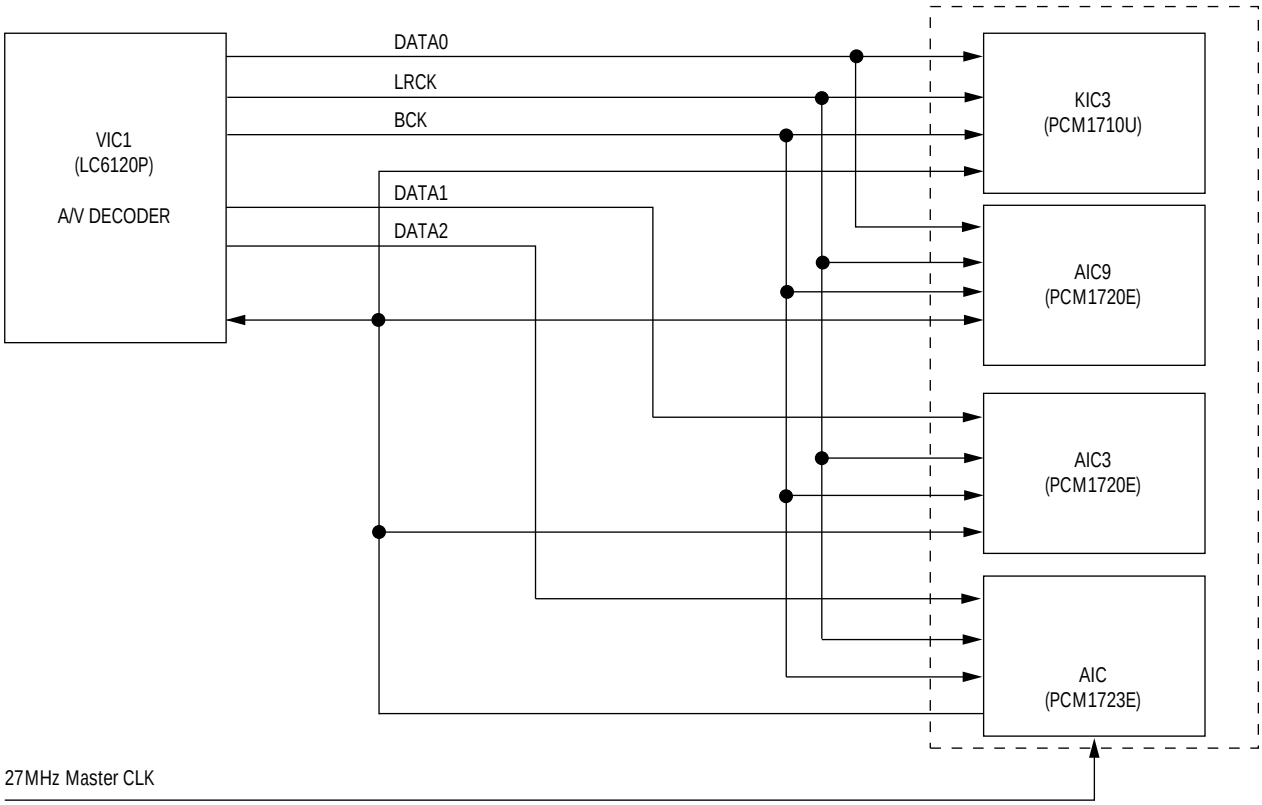



Fig. 2-56 Audio data and CLK

1. AC-3 5.1 channel

The system CLK generated by AIC14 built-in PLL circuit is provided for A/V decoder and audio D/A converter and Sync. of each channel is agreed.
DVD audio data outputted from VIC1 A/V decoder are supplied to DATA0 for 2 channels and to DATA0-2 for 5.1 channel. Then, LRCK is outputted by 48KHz or 96KHz.
Front L/R channel is outputted in DATA0, rear L/R channel in DATA1 and center and sub woofer channel in DATA2. DATA0 data are outputted to front L/R channel after D/A conversion and filtering of AIC3(PCM1720E).
DATA1 data are ouputted by analog signal of D/A converter of AIC9 and to rear L/R via HPF after filtering.
DATA2 data are converted into analog signal by D/A converter of AIC14 and to rear L/R via HPF after filtering and a channel is outputted by center signal via post filter nad HPF.
The other channel of AIC14 is outputted by subwoofer signal through amplifier of +4.5dB and LPF.

2. Bass redirection(2 Channel down mixing)

If only 2 speakers are used in spite of output to 5.1 channel, center/rear and subwoofer signal may be down mixed in 2 channel L/R.
If there is a subwoofer speaker, it is outputted directly to subwoofer without down mixing.

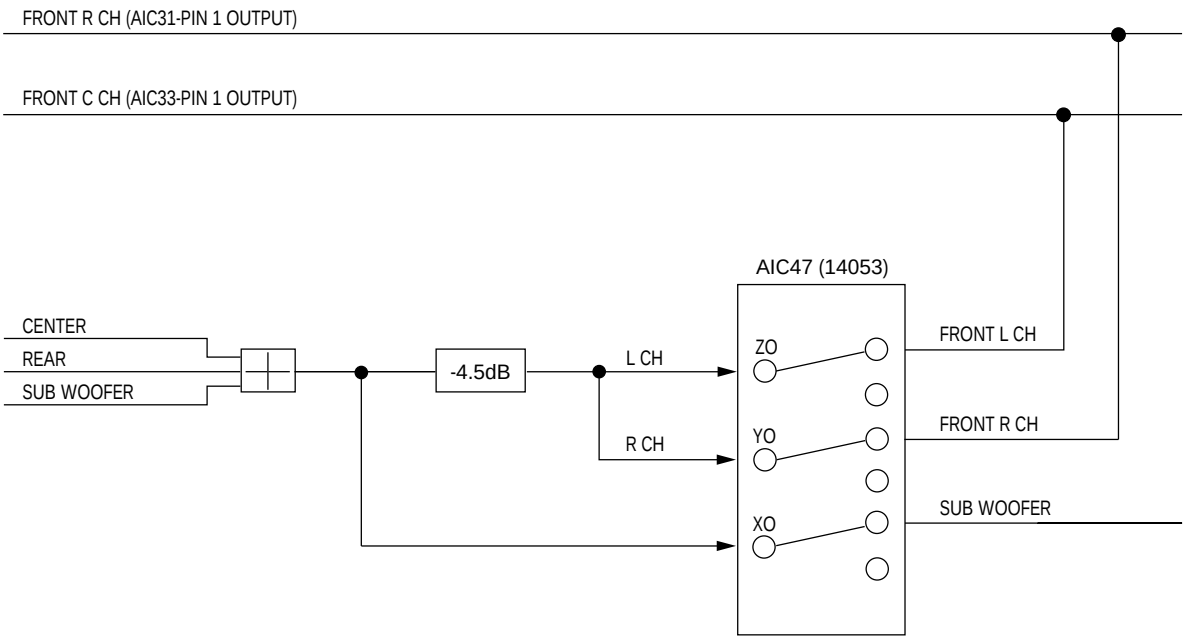



Fig. 2-57 2 Channel down mixing

The switch operations are carried out by AIC47(14053) in case of 2 Channel down mixing and sub woofer speaker using.

| | CD/VCD | DVD | |
|---|---|---|---|
| | | Down mixing | Sub woofer speaker using |
| AIC47(9,10,11 pin) | L | H | L |
| Output | AIC17-2, 5 pin<br>No down mixing:open | AIC17-1, 2 pin<br>Mixed L/R ouput | AIC17-12<br>Sub woofer speaker output |

Table 2-1 Down mixing output table

### 2-7-3 CD/VCD audio output

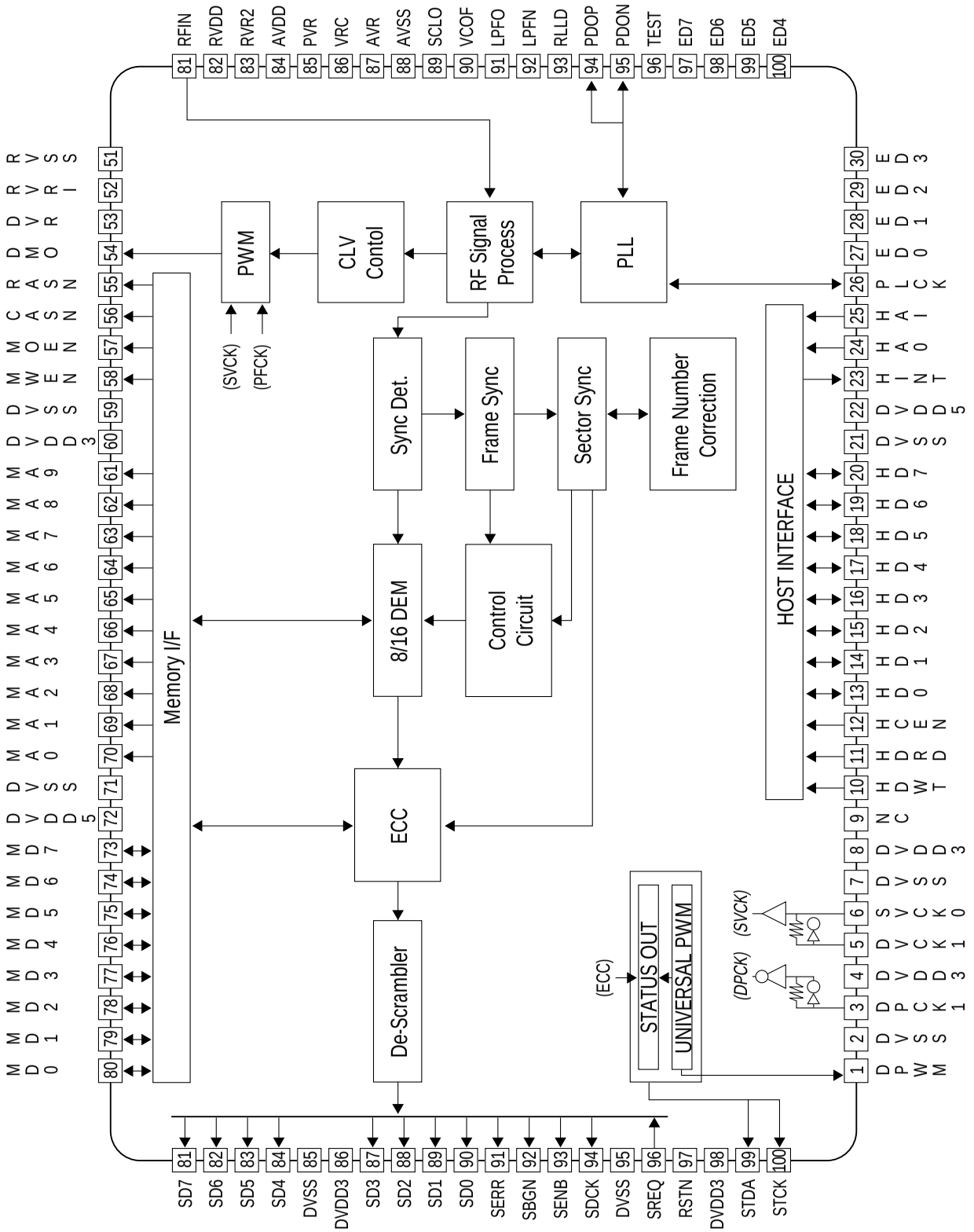
The audio of CD and VIDEO-CD bypasses the audio data of SIC7(TC9420F) in VIC1 A/A decoder and outputs them to DATA0. Also, they are outputted in stereo 2 channel(L/R channel) via D/A conversion and filtering of KIC3. Then, the switching of DVD audio output outputted from AIC3 and CD/VCD audio ouput of KIC3 at output in stereo 2 channels is describes in the below table.

| | CD/VCD | DVD |
|---|---|---|
| KIC5-9, 10 pin (A,B) | H | L |
| Output | KIC5-1, 13 Pin signal output | KIC5-2, 12 Pin signal output |

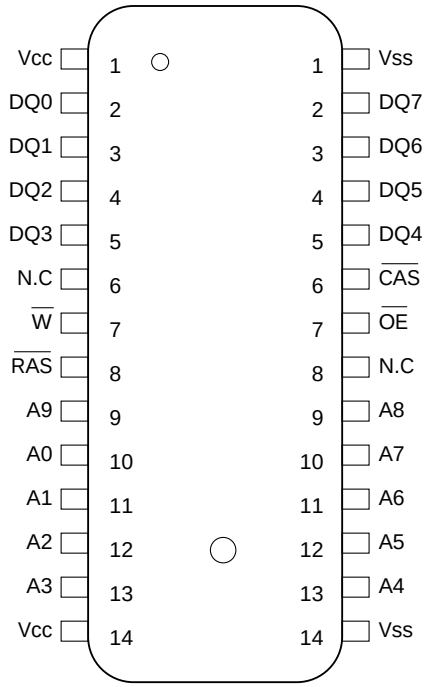
Table 2-2 CD/DVD Ouput table

# 2-8 IC Blocks

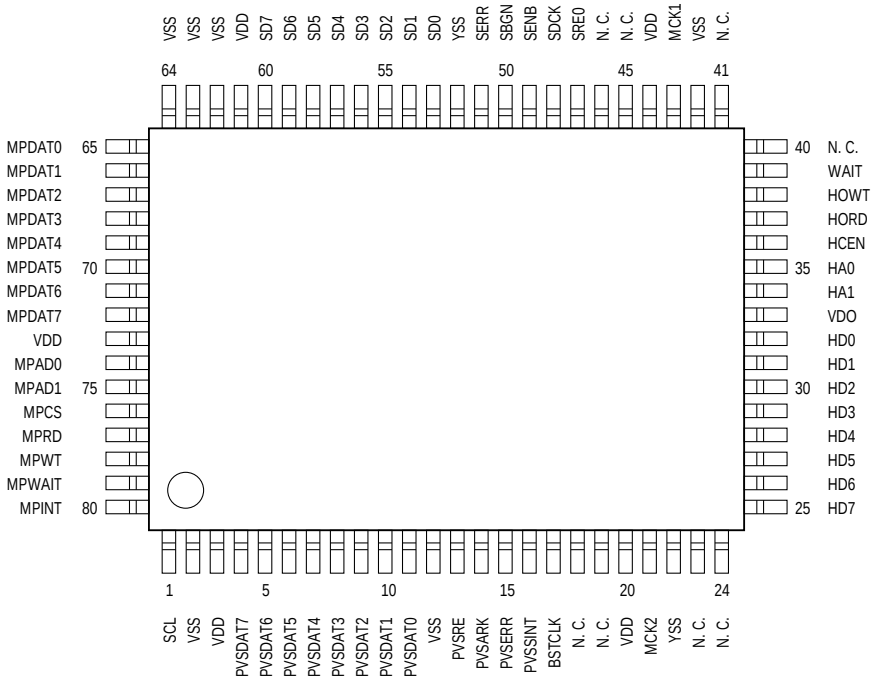
## 2-8-1 DIC1 (TC90A19F)



## 2-8-2 DIC2 (KM48C512)

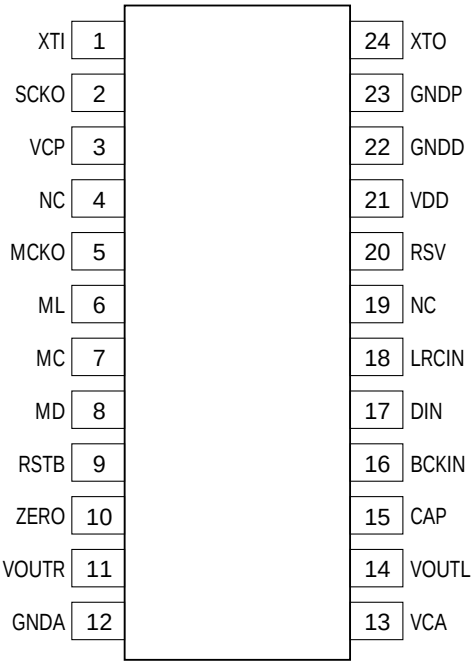



## 2-8-3 DIC6 (TC6804AF)

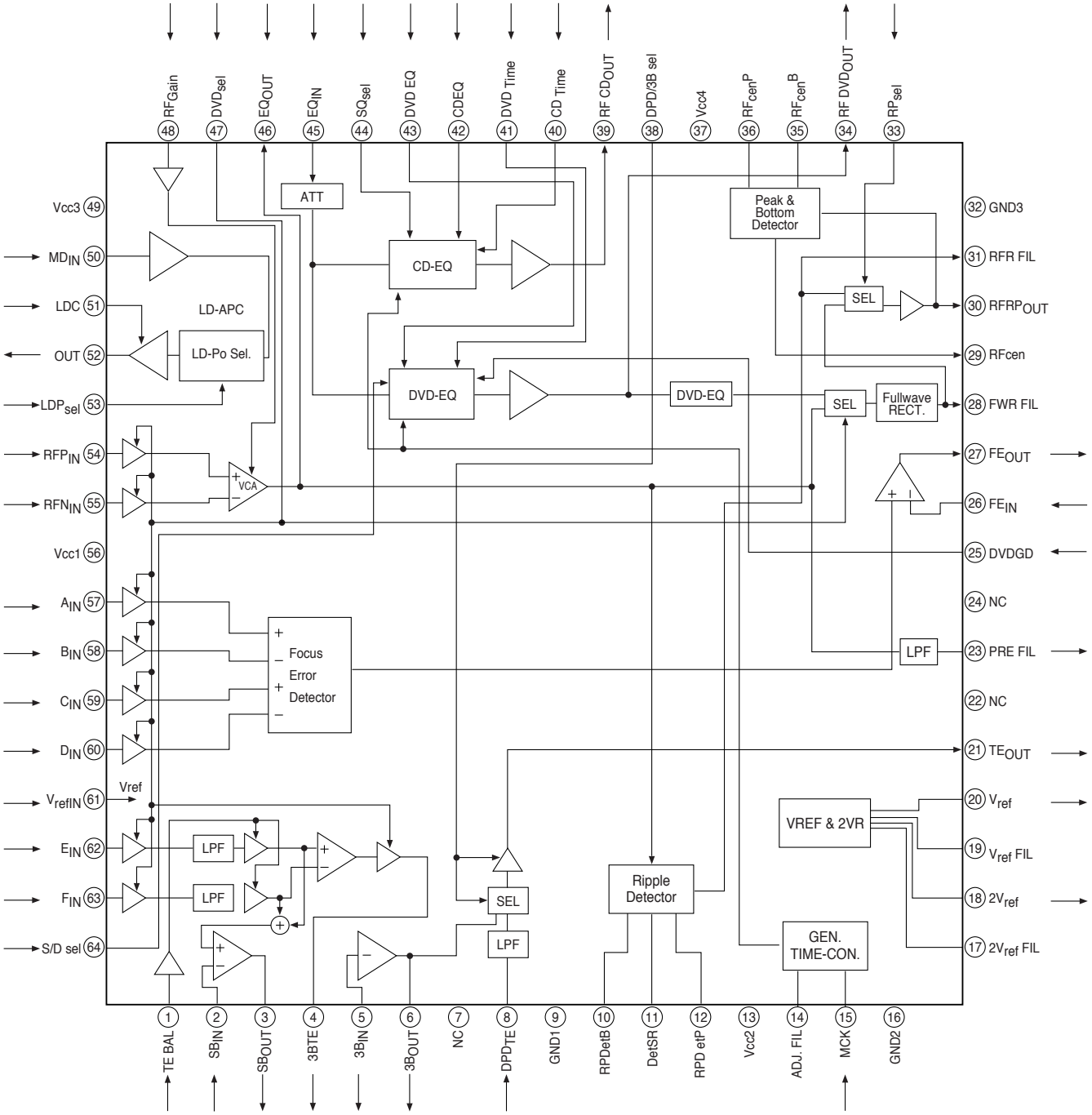


## 2-8-4 AIC3/AIC9 (PCM1720)

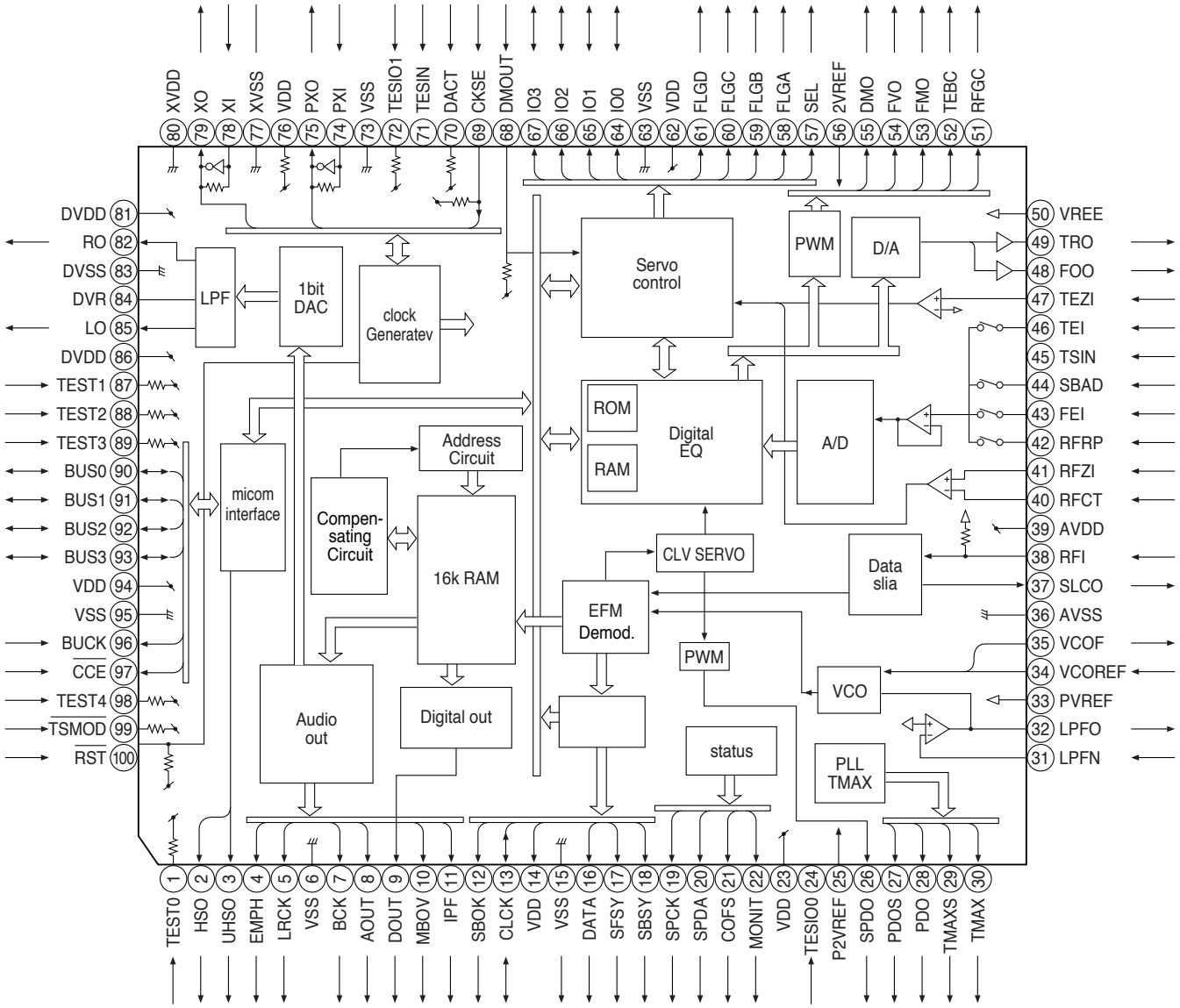
## 2-8-5 AIC14 (PCM1723)



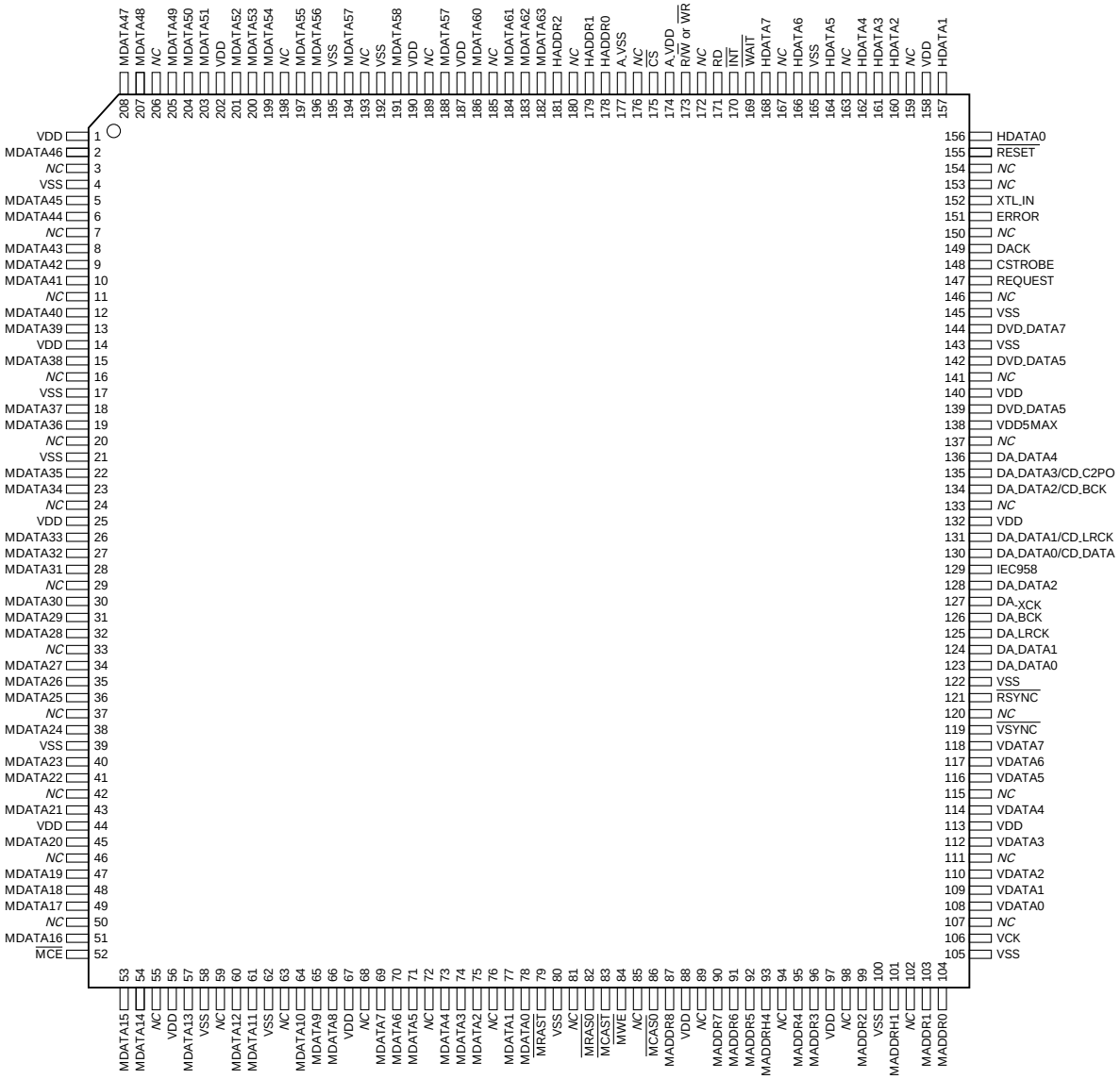
## 2-8-6 RIC1 (TA1236F)



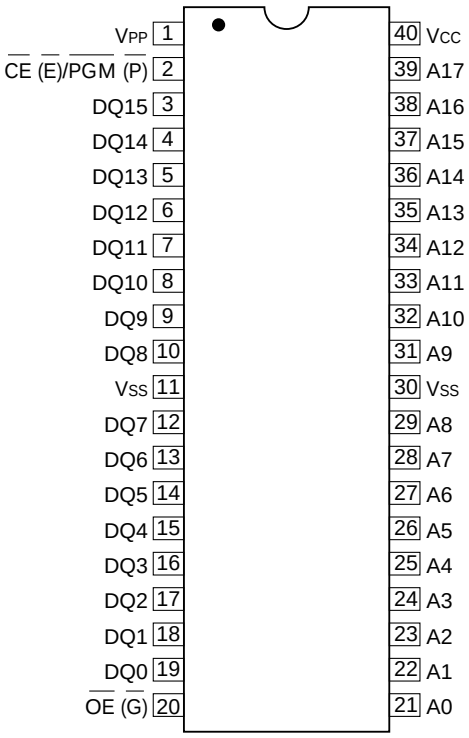
## 2-8-7 SIC (TC9420F)



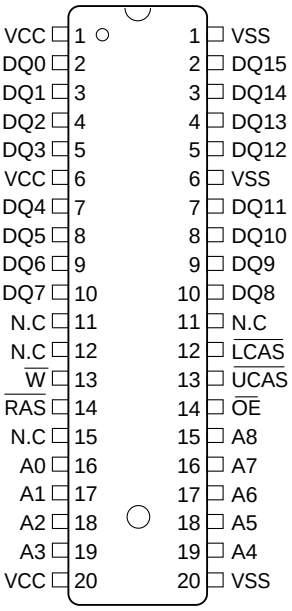
## 2-8-9 VIC1 (CL1620)



## 2-8-10 VIC2 (AM27C4096)

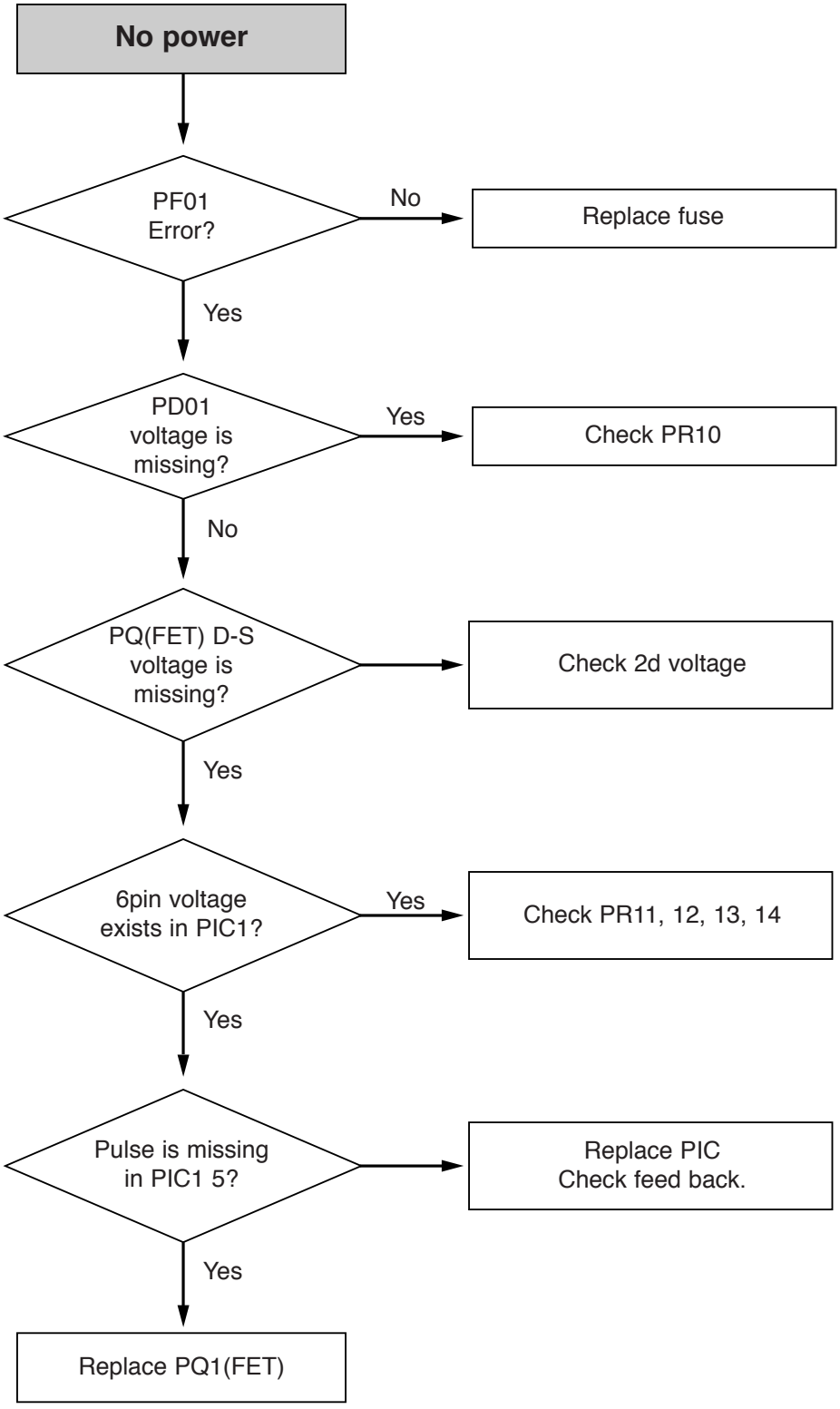


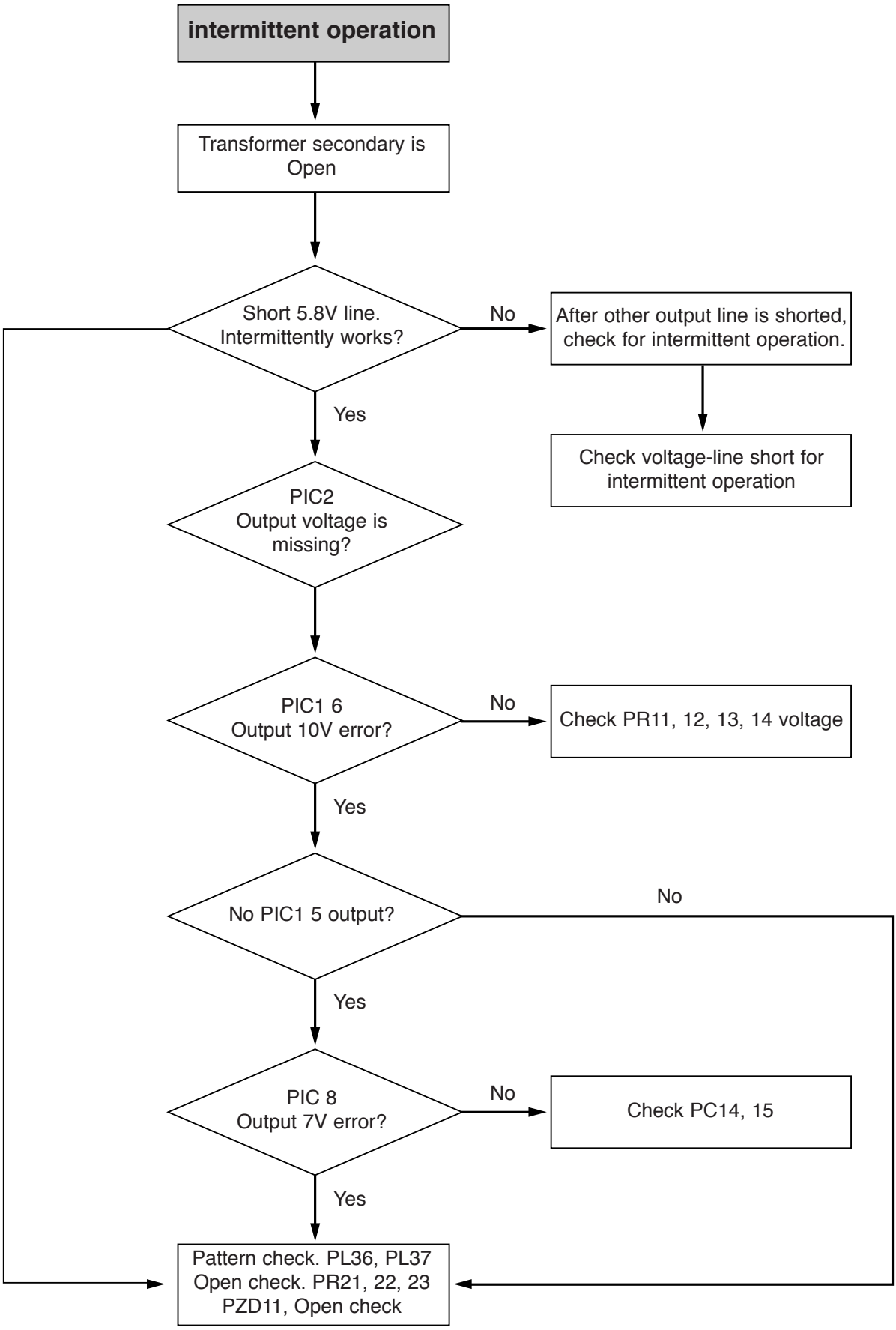

## 2-8-11 VIC3/4/5/6/7 (KM416C254BJ)

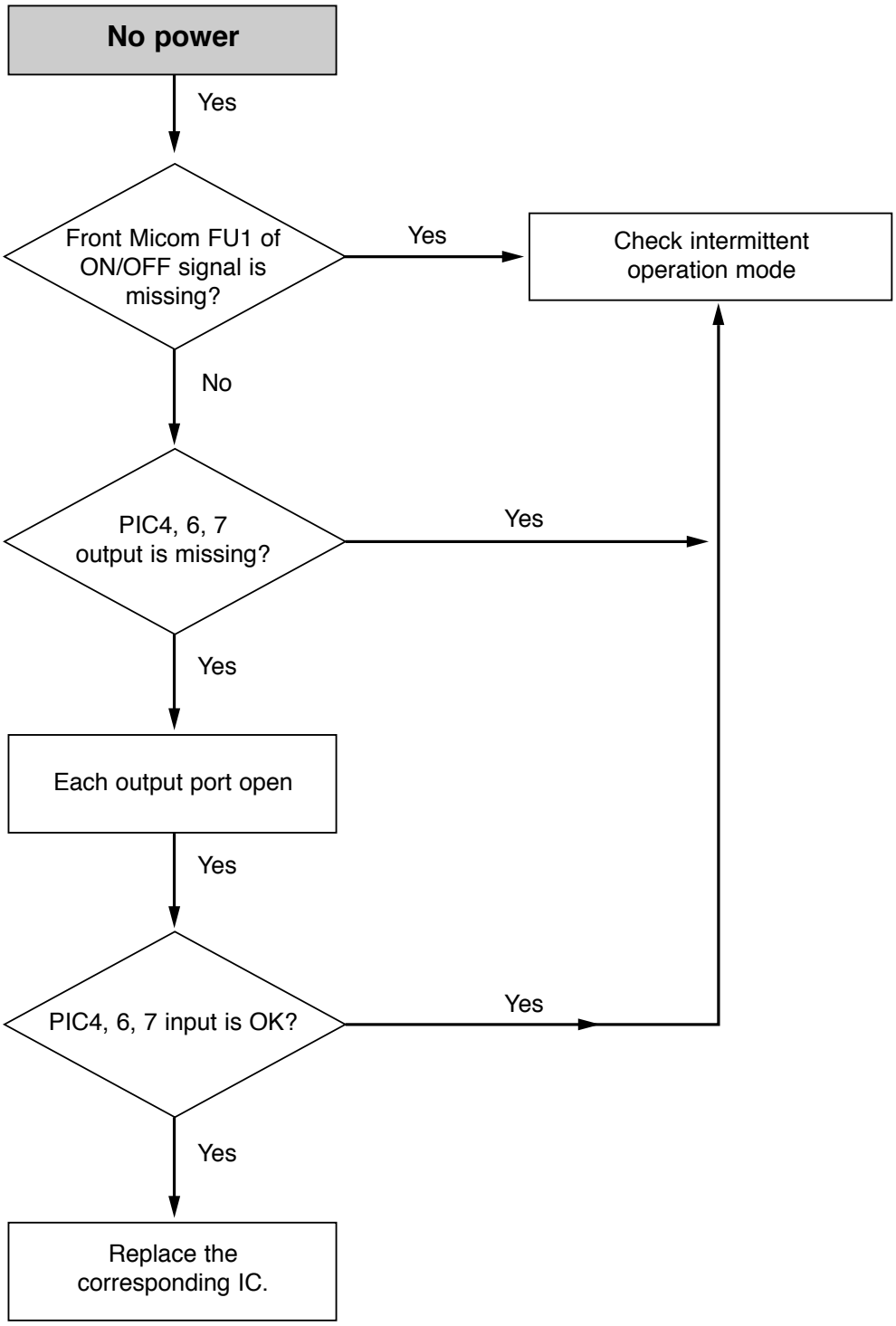


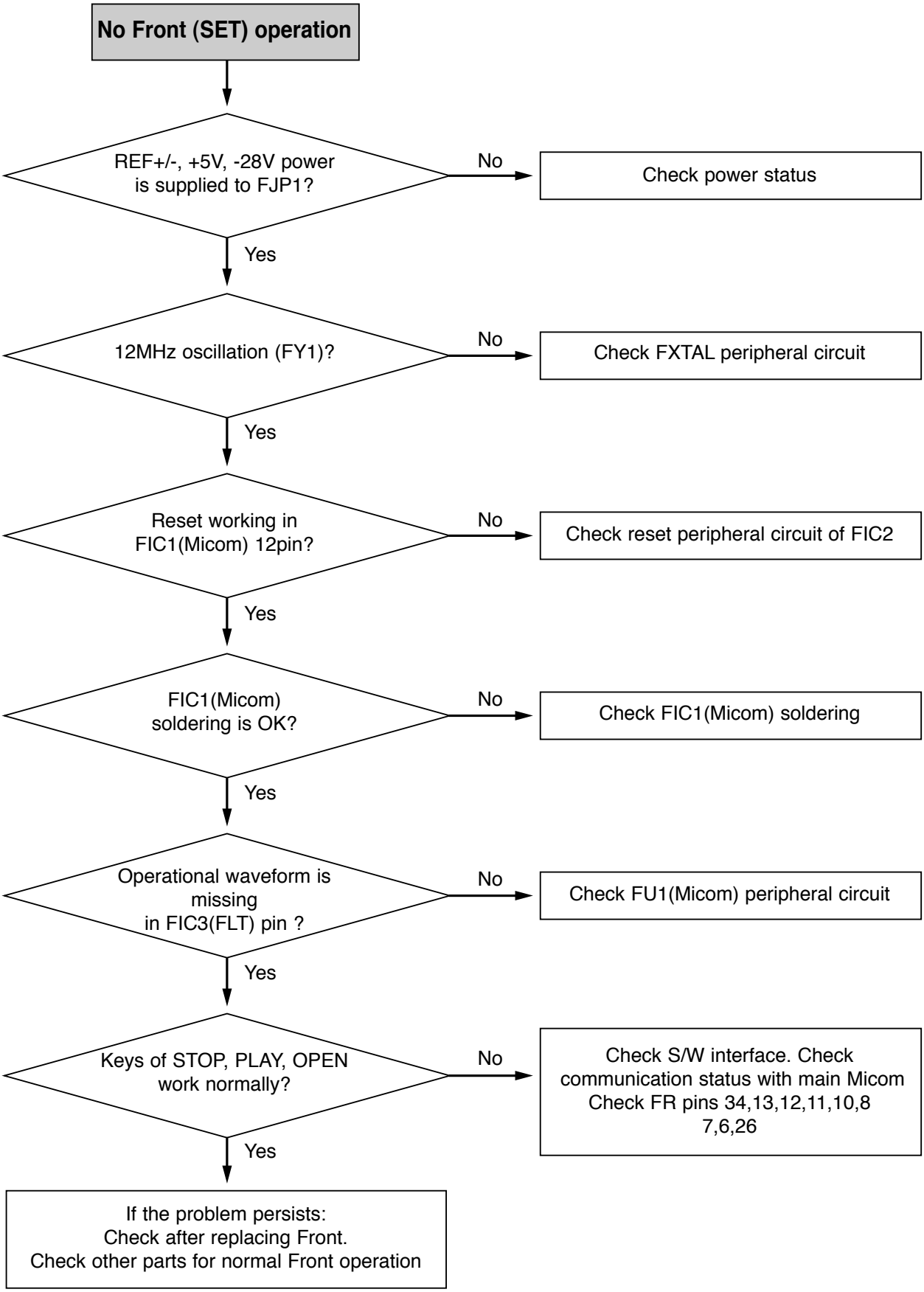

## 2-8-12 VIC31 (STV0119)

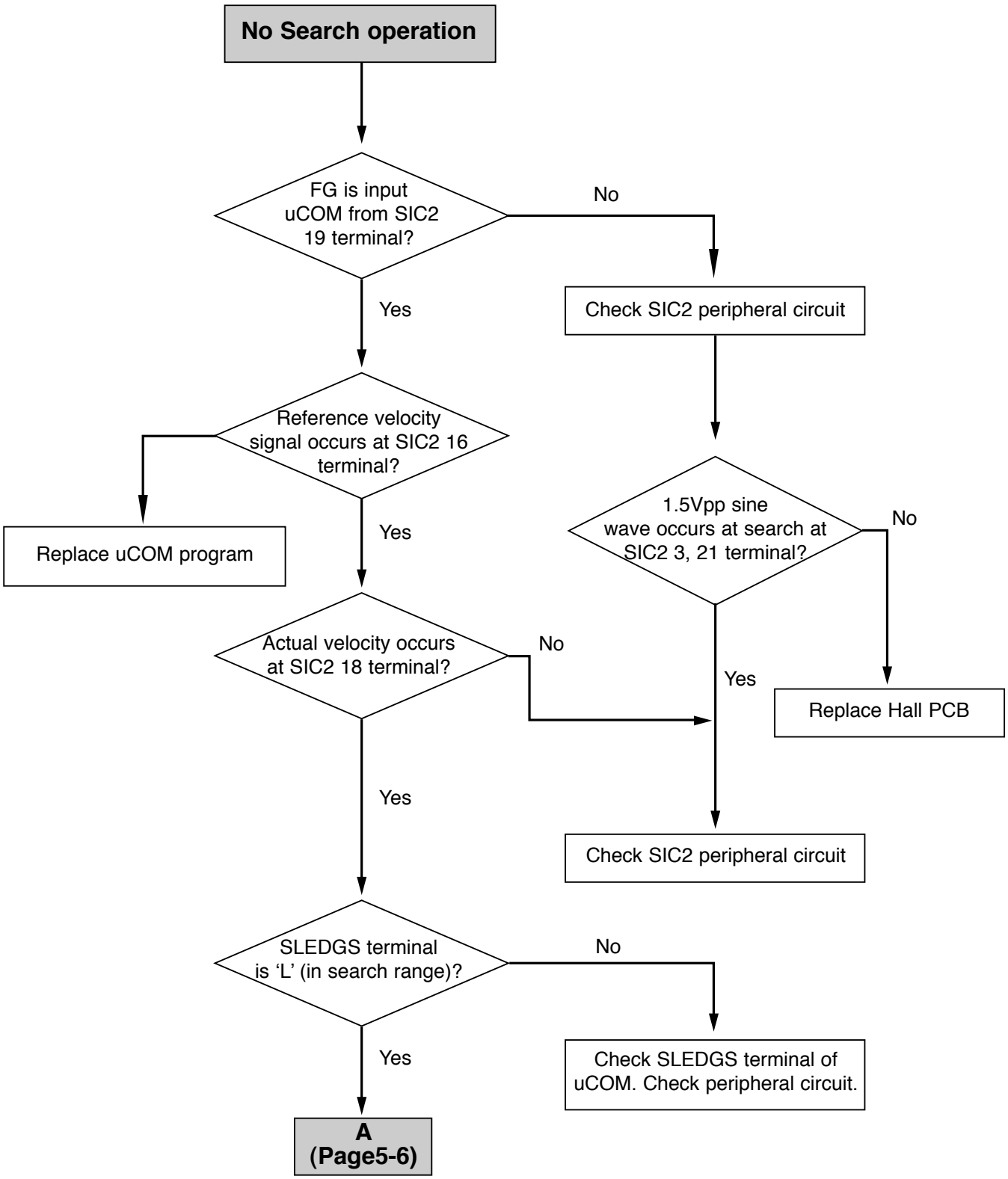
# 5. Thoubleshooting

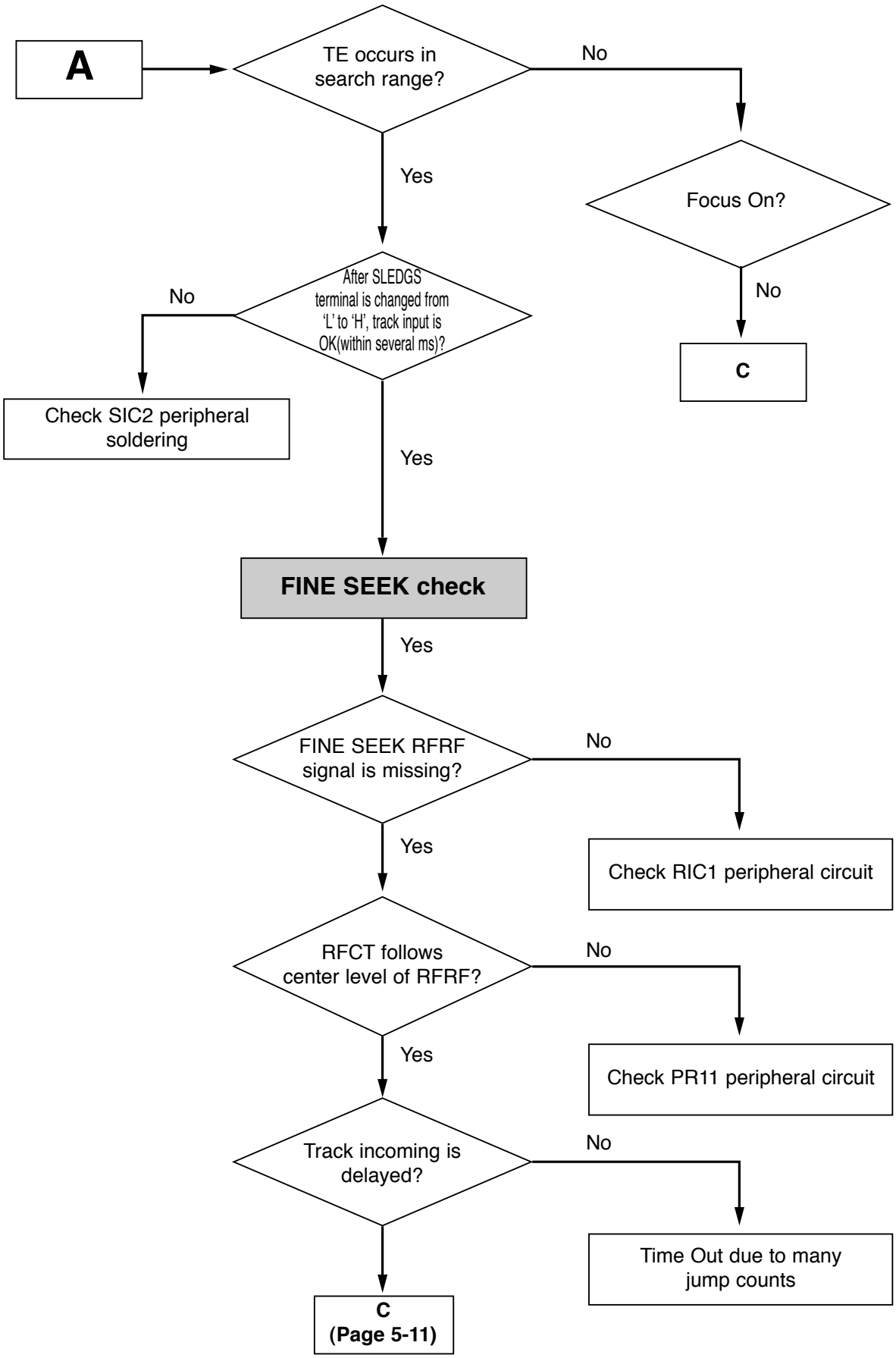


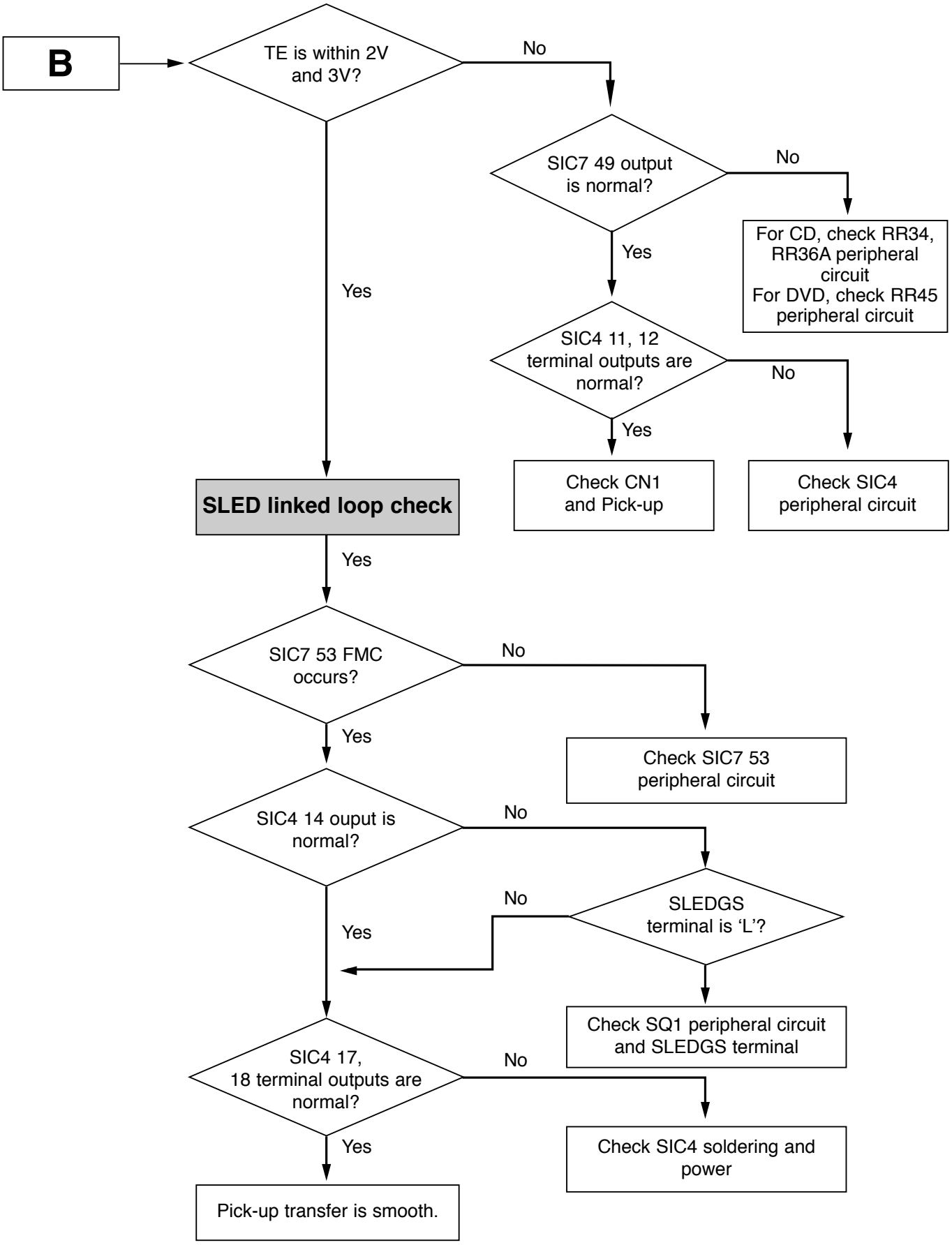

intermittent operation
Transformer secondary is Open
Short 5.8V line. Intermittently works?
No
After other output line is shorted, check for intermittent operation.
Check voltage-line short for intermittent operation
Yes
PIC2 Output voltage is missing?
PIC1 6 Output 10V error?
No
Check PR11, 12, 13, 14 voltage
Yes
No PIC1 5 output?
No
Yes
PIC 8 Output 7V error?
No
Check PC14, 15
Yes
Pattern check. PL36, PL37 Open check. PR21, 22, 23 PZD11, Open check

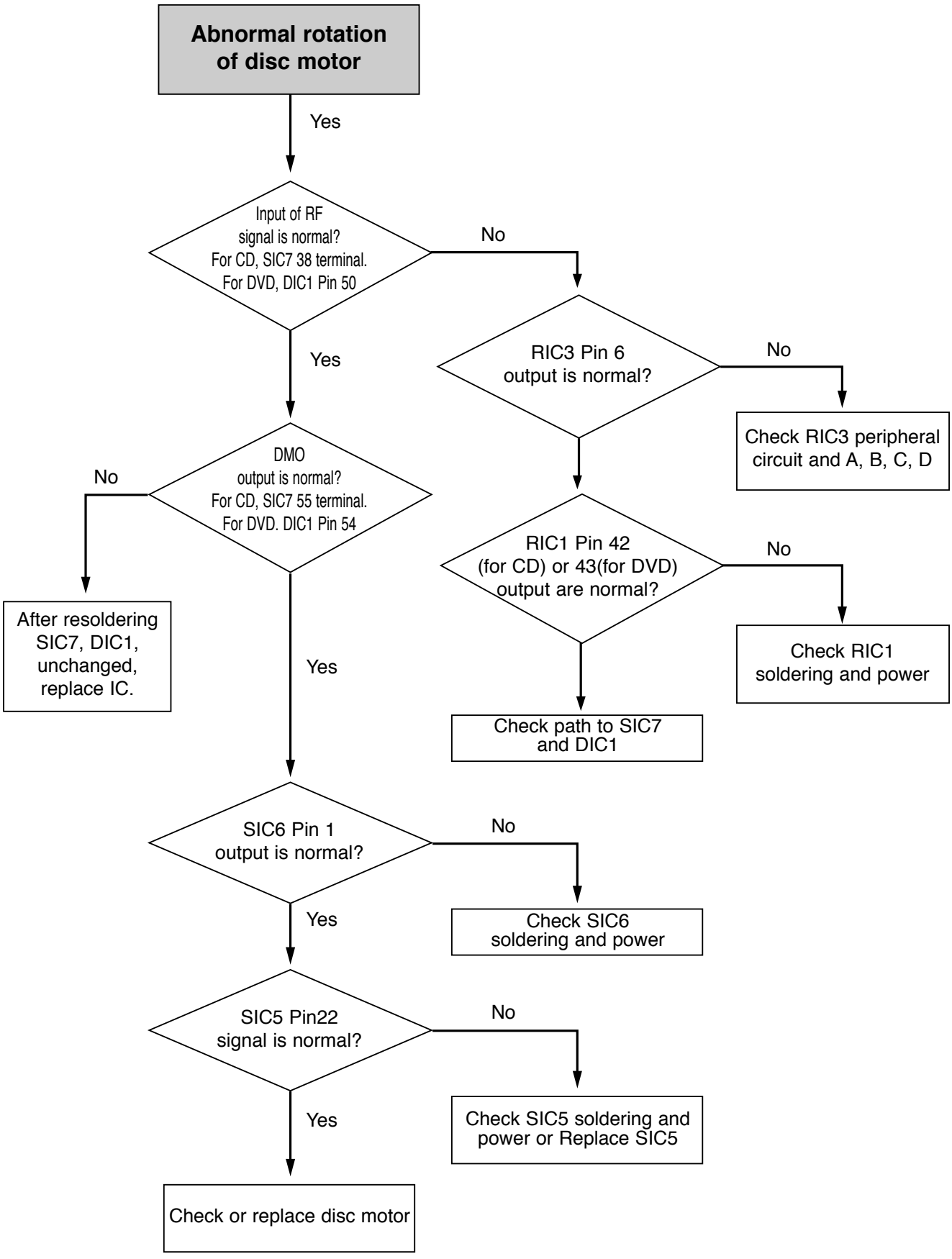

No power
Yes
Front Micom FU1 of ON/OFF signal is missing?
Yes
Check intermittent operation mode
No
PIC4, 6, 7 output is missing?
Yes
Yes
Each output port open
Yes
PIC4, 6, 7 input is OK?
Yes
Yes
Replace the corresponding IC.

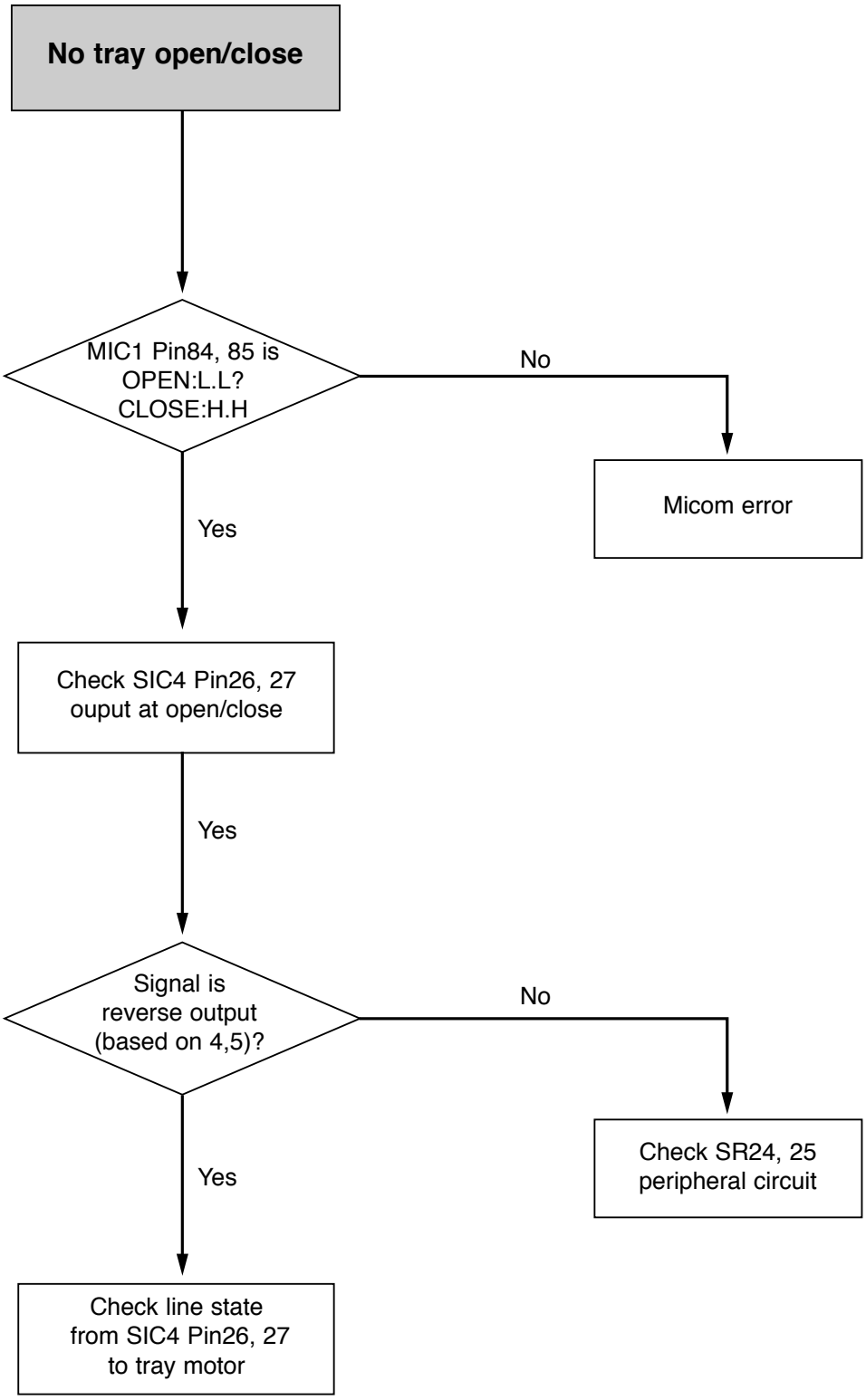

No Front (SET) operation
REF+/-, +5V, -28V power is supplied to FJP1?
No
Check power status
Yes
12MHz oscillation (FY1)?
No
Check FXTAL peripheral circuit
Yes
Reset working in FIC1(Micom) 12pin?
No
Check reset peripheral circuit of FIC2
Yes
FIC1(Micom) soldering is OK?
No
Check FIC1(Micom) soldering
Yes
Operational waveform is missing in FIC3(FLT) pin ?
No
Check FU1(Micom) peripheral circuit
Yes
Keys of STOP, PLAY, OPEN work normally?
No
Check S/W interface. Check communication status with main Micom Check FR pins 34,13,12,11,10,8 7,6,26
Yes
If the problem persists:
Check after replacing Front.
Check other parts for normal Front operation

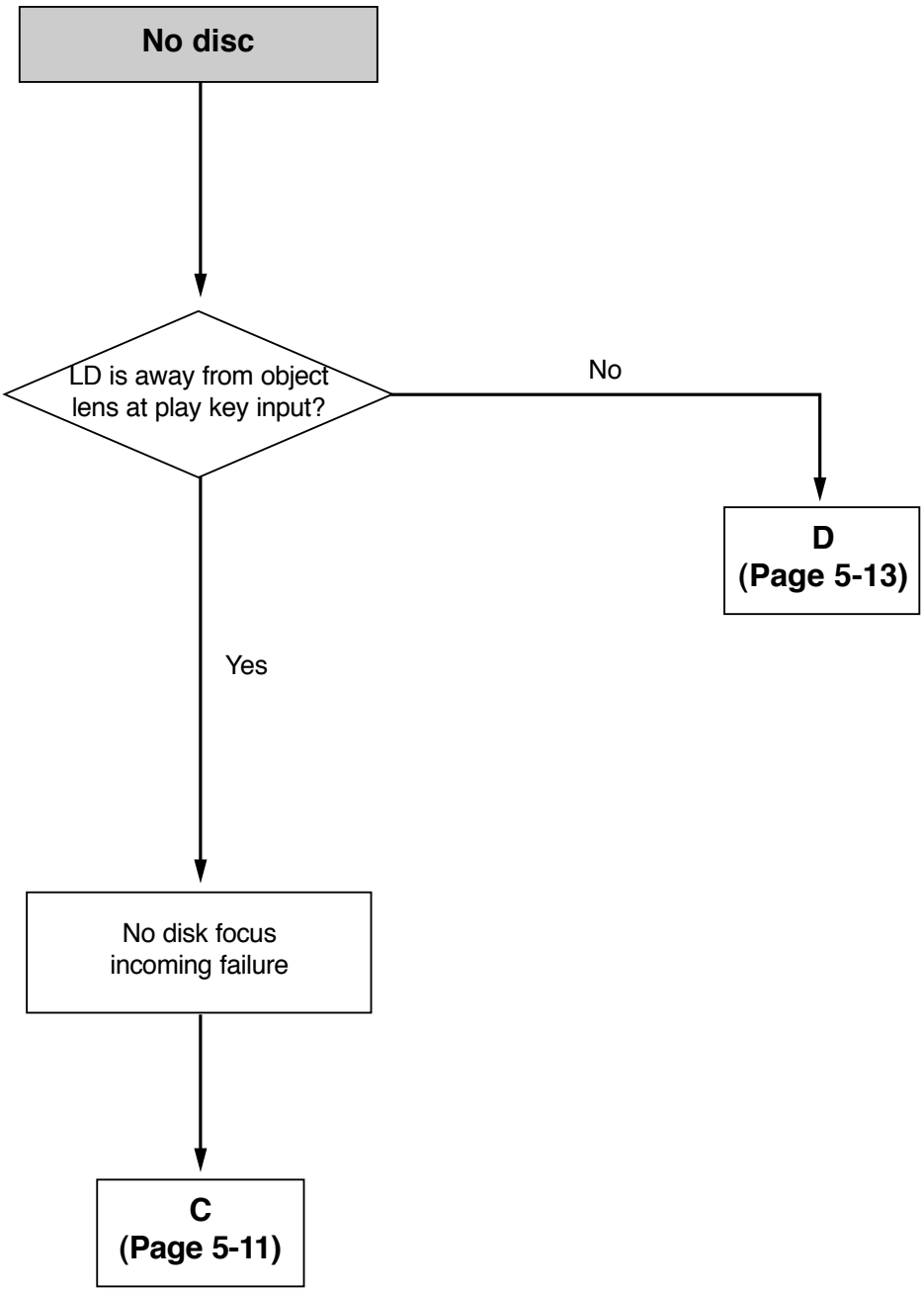

No Search operation
FG is input uCOM from SIC2 19 terminal?
No
Yes
Check SIC2 peripheral circuit
Reference velocity signal occurs at SIC2 16 terminal?
Replace uCOM program
Yes
1.5Vpp sine wave occurs at search at SIC2 3, 21 terminal?
No
Yes
Replace Hall PCB
Actual velocity occurs at SIC2 18 terminal?
No
Yes
Check SIC2 peripheral circuit
SLEDGS terminal is 'L' (in search range)?
No
Yes
Check SLEDGS terminal of uCOM. Check peripheral circuit.
A (Page5-6)

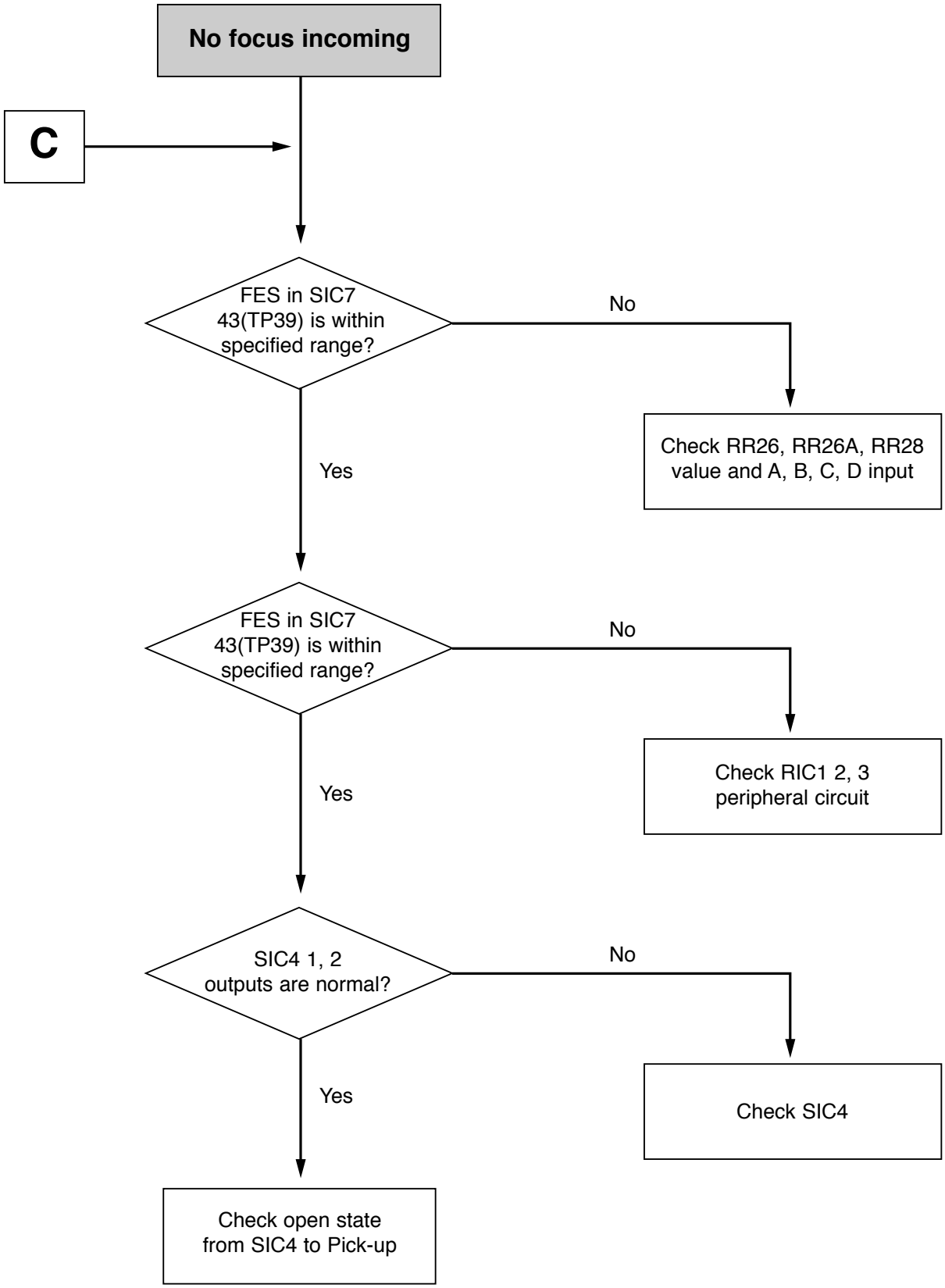

A
TE occurs in search range?
No
Yes
Focus On?
No
C
After SLEDGS terminal is changed from 'L' to 'H', track input is OK(within several ms)?
No
Check SIC2 peripheral soldering
Yes
FINE SEEK check
Yes
FINE SEEK RFRF signal is missing?
No
Check RIC1 peripheral circuit
Yes
RFCT follows center level of RFRF?
No
Check PR11 peripheral circuit
Yes
Track incoming is delayed?
No
Time Out due to many jump counts
C
(Page 5-11)

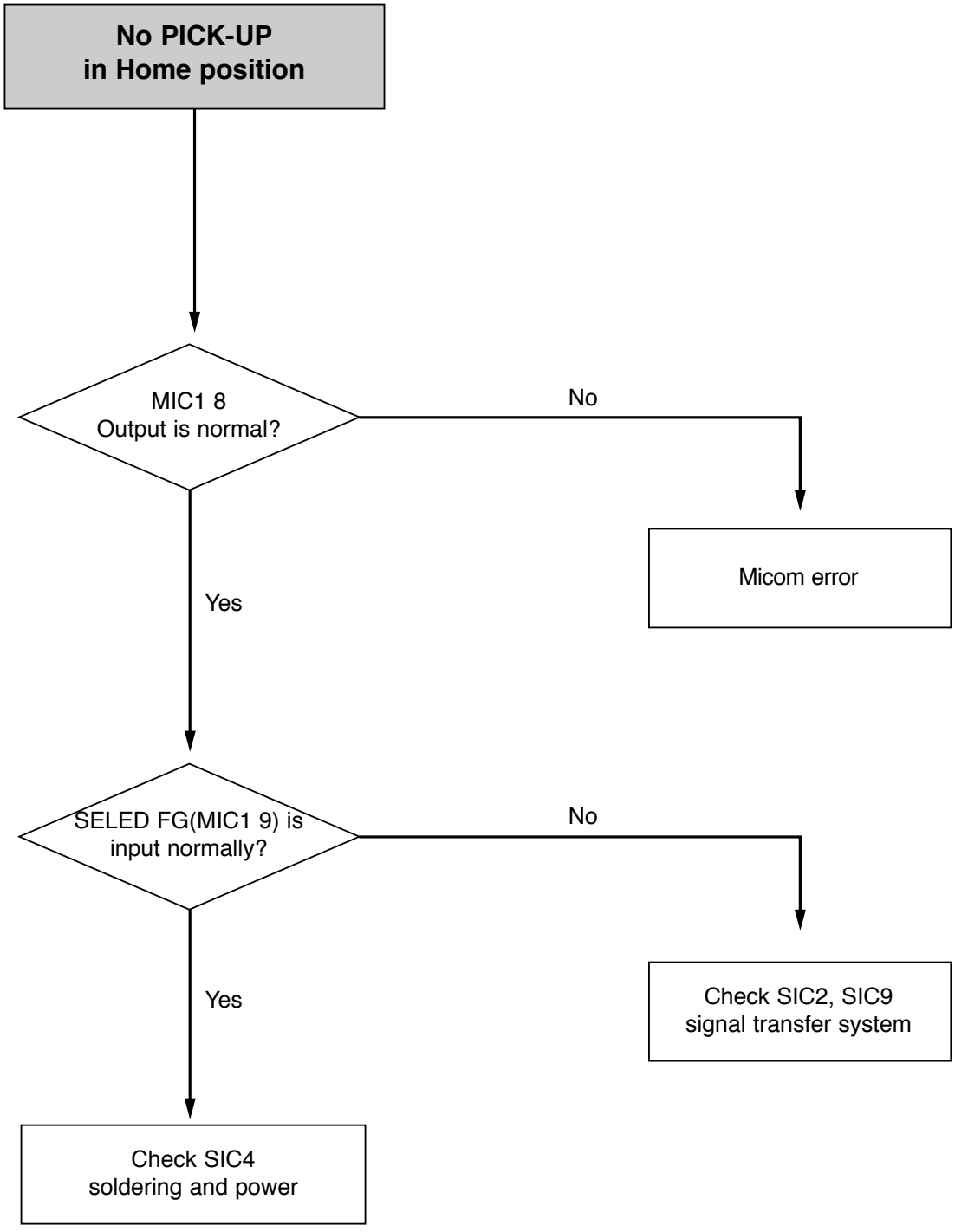

B
TE is within 2V and 3V?
No
Yes
SIC7 49 output is normal?
No
Yes
For CD, check RR34, RR36A peripheral circuit
For DVD, check RR45 peripheral circuit
SIC4 11, 12 terminal outputs are normal?
No
Yes
Check CN1 and Pick-up
Check SIC4 peripheral circuit
SLED linked loop check
Yes
SIC7 53 FMC occurs?
No
Yes
Check SIC7 53 peripheral circuit
SIC4 14 ouput is normal?
No
No
SLEDGS terminal is 'L'?
Yes
Check SQ1 peripheral circuit and SLEDGS terminal
SIC4 17, 18 terminal outputs are normal?
No
Yes
Check SIC4 soldering and power
Pick-up transfer is smooth.

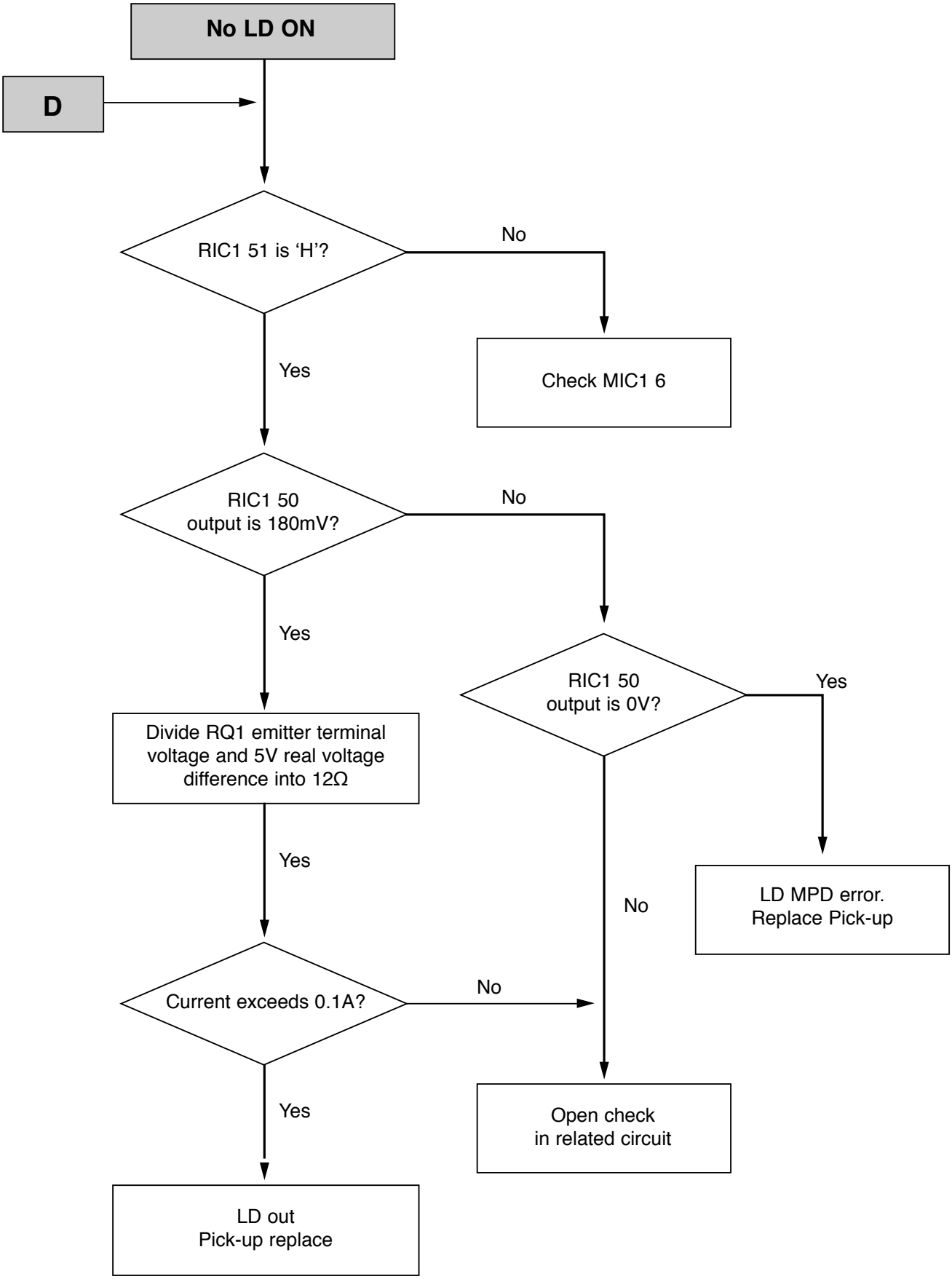

Abnormal rotation of disc motor
Yes
Input of RF signal is normal? For CD, SIC7 38 terminal. For DVD, DIC1 Pin 50
No
RIC3 Pin 6 output is normal?
No
Check RIC3 peripheral circuit and A, B, C, D
Yes
DMO output is normal? For CD, SIC7 55 terminal. For DVD. DIC1 Pin 54
No
After resoldering SIC7, DIC1, unchanged, replace IC.
RIC1 Pin 42 (for CD) or 43(for DVD) output are normal?
No
Check RIC1 soldering and power
Check path to SIC7 and DIC1
Yes
SIC6 Pin 1 output is normal?
No
Check SIC6 soldering and power
Yes
SIC5 Pin22 signal is normal?
No
Check SIC5 soldering and power or Replace SIC5
Yes
Check or replace disc motor

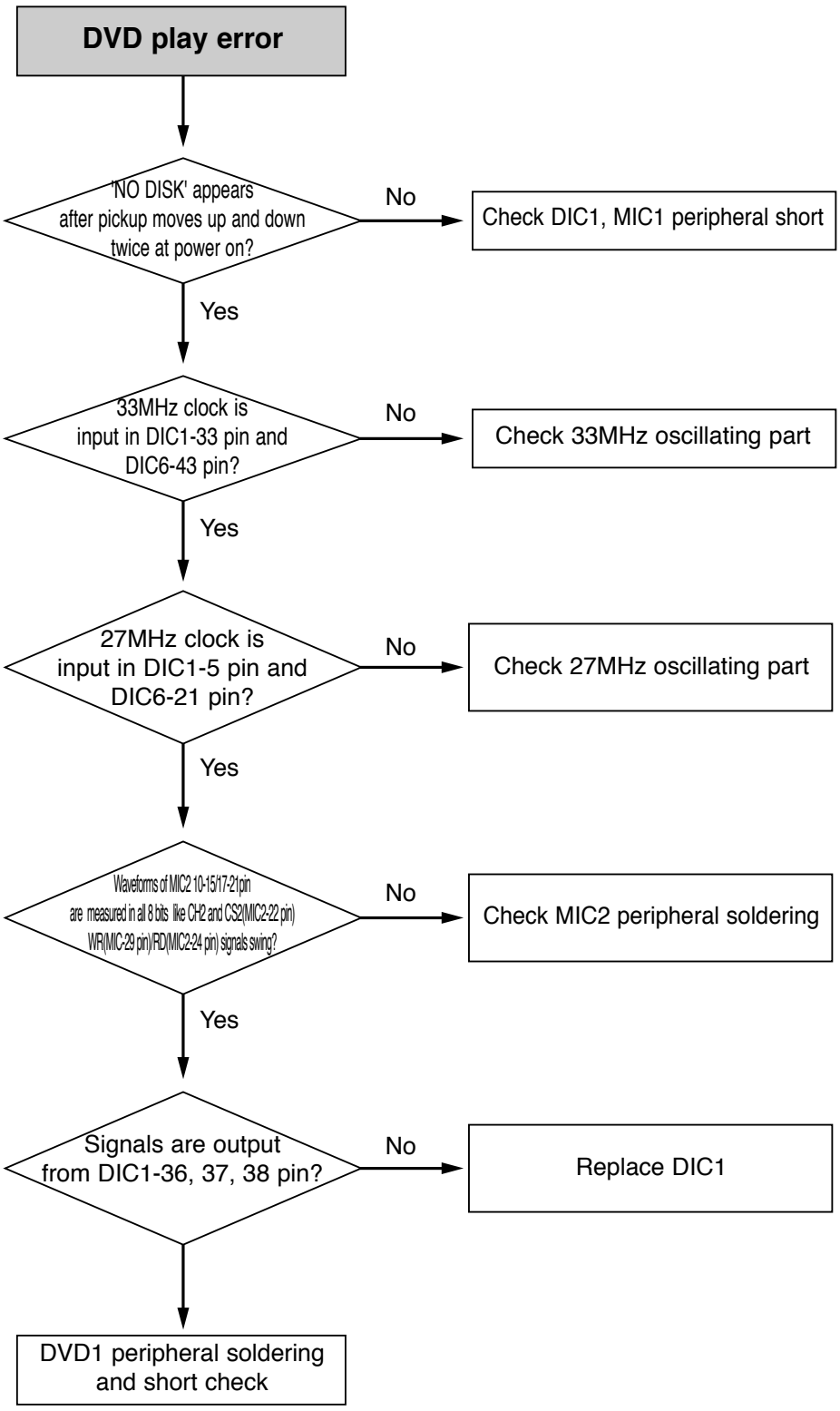

No tray open/close
MIC1 Pin84, 85 is OPEN:L.L? CLOSE:H.H
No
Micom error
Yes
Check SIC4 Pin26, 27 ouput at open/close
Yes
Signal is reverse output (based on 4,5)?
No
Check SR24, 25 peripheral circuit
Yes
Check line state from SIC4 Pin26, 27 to tray motor

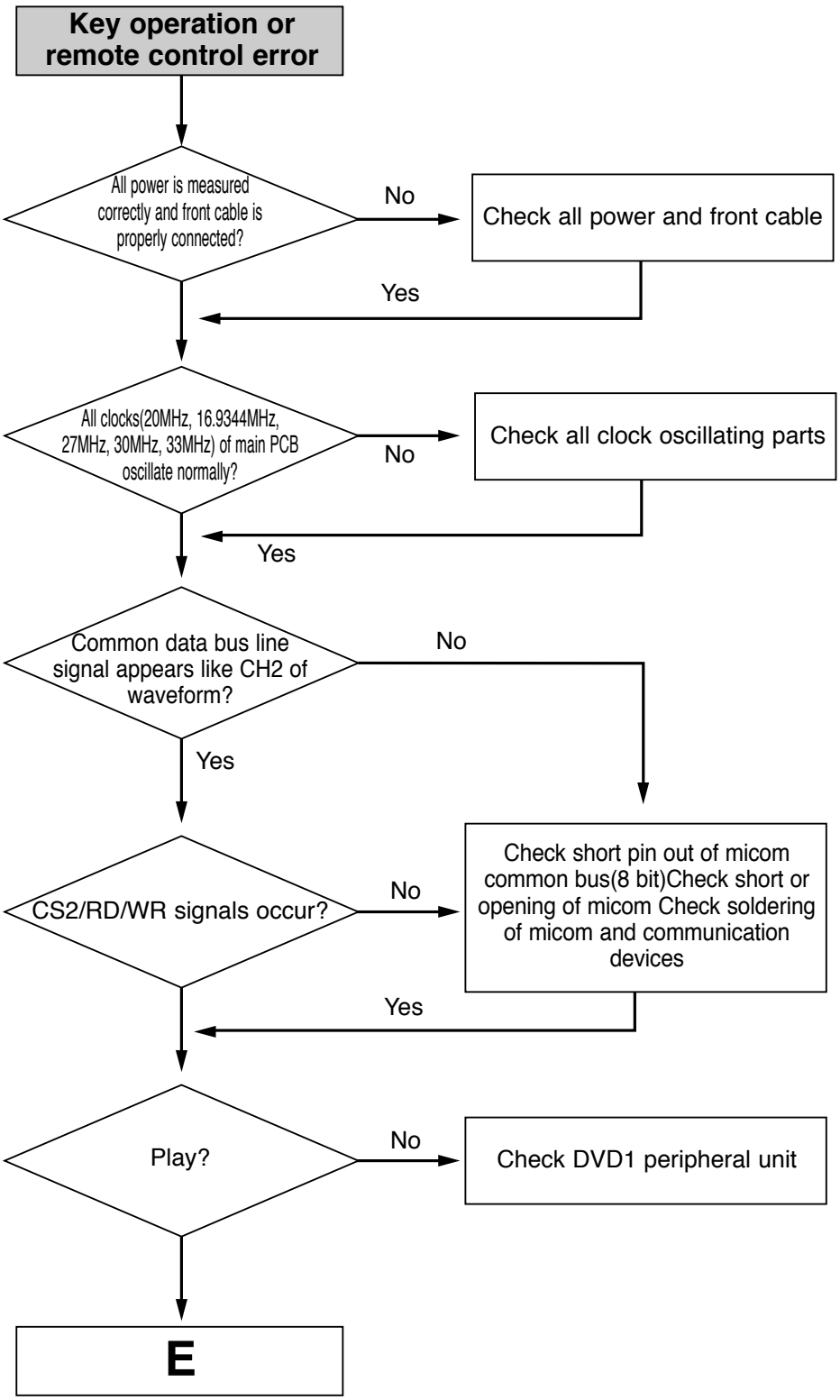

No disc
LD is away from object lens at play key input?
No
D
(Page 5-13)
Yes
No disk focus incoming failure
C
(Page 5-11)

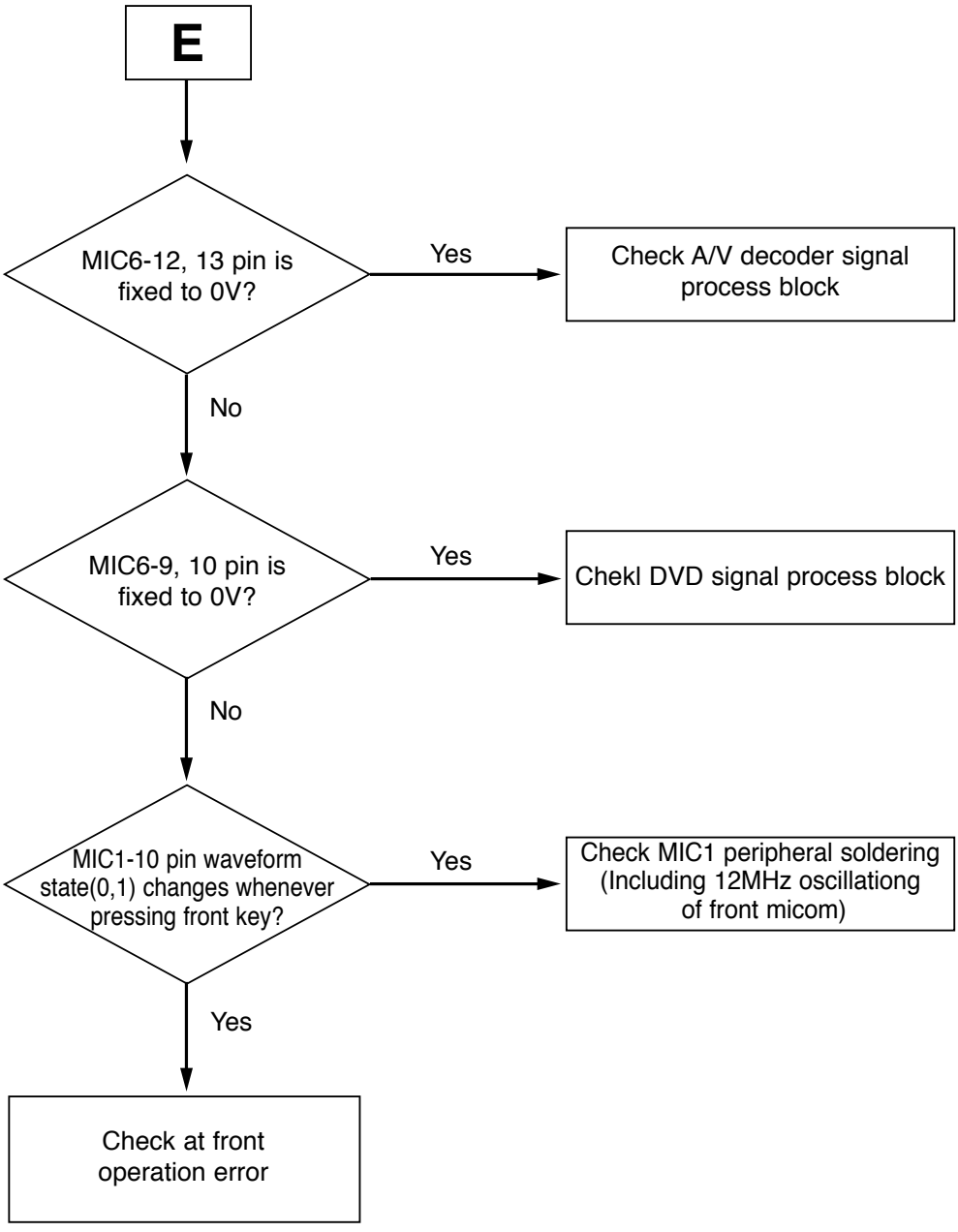

No focus incoming
C
FES in SIC7 43(TP39) is within specified range?
No
Check RR26, RR26A, RR28 value and A, B, C, D input
Yes
FES in SIC7 43(TP39) is within specified range?
No
Check RIC1 2, 3 peripheral circuit
Yes
SIC4 1, 2 outputs are normal?
No
Check SIC4
Yes
Check open state from SIC4 to Pick-up

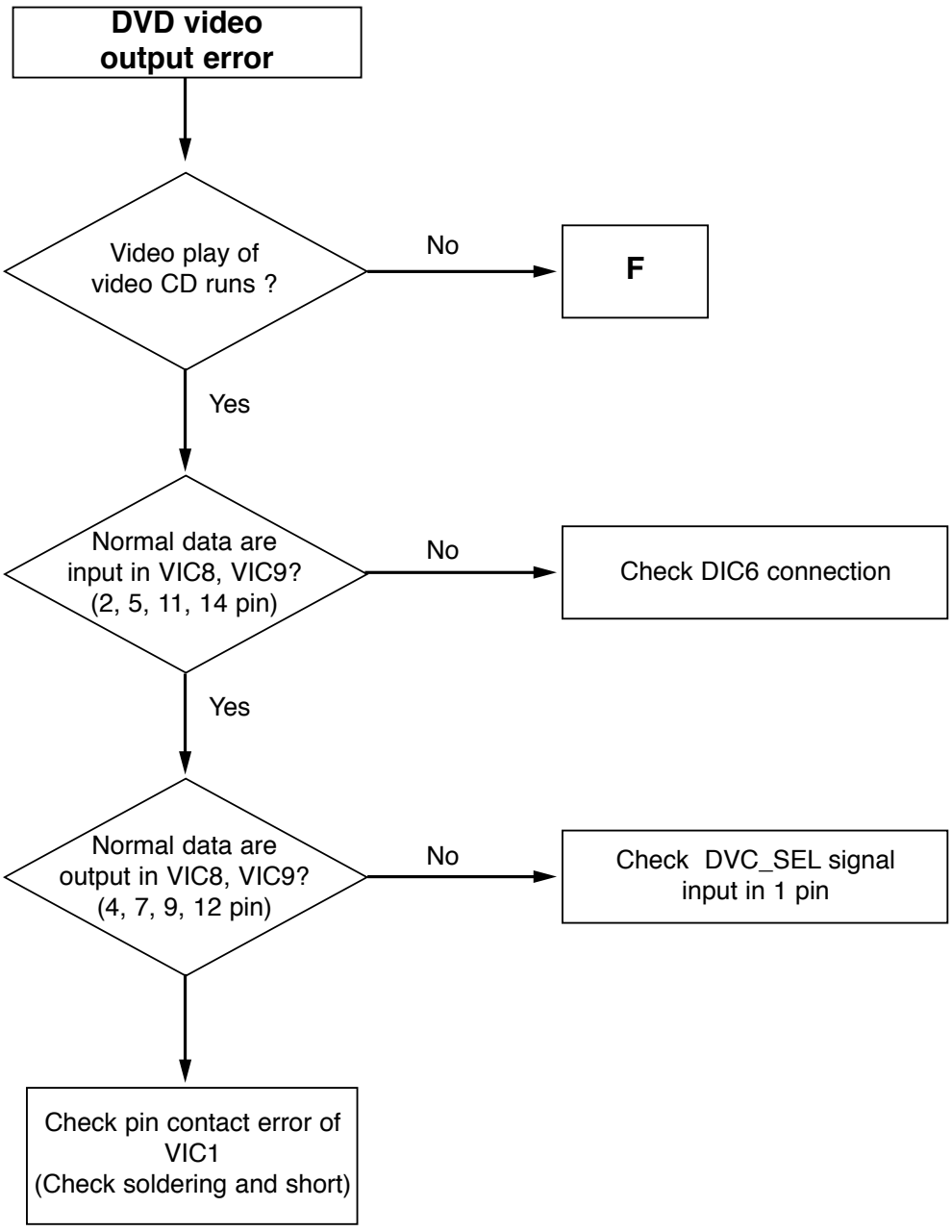

No PICK-UP
in Home position
MIC1 8
Output is normal?
No
Micom error
Yes
SELED FG(MIC1 9) is
input normally?
No
Check SIC2, SIC9
signal transfer system
Yes
Check SIC4
soldering and power

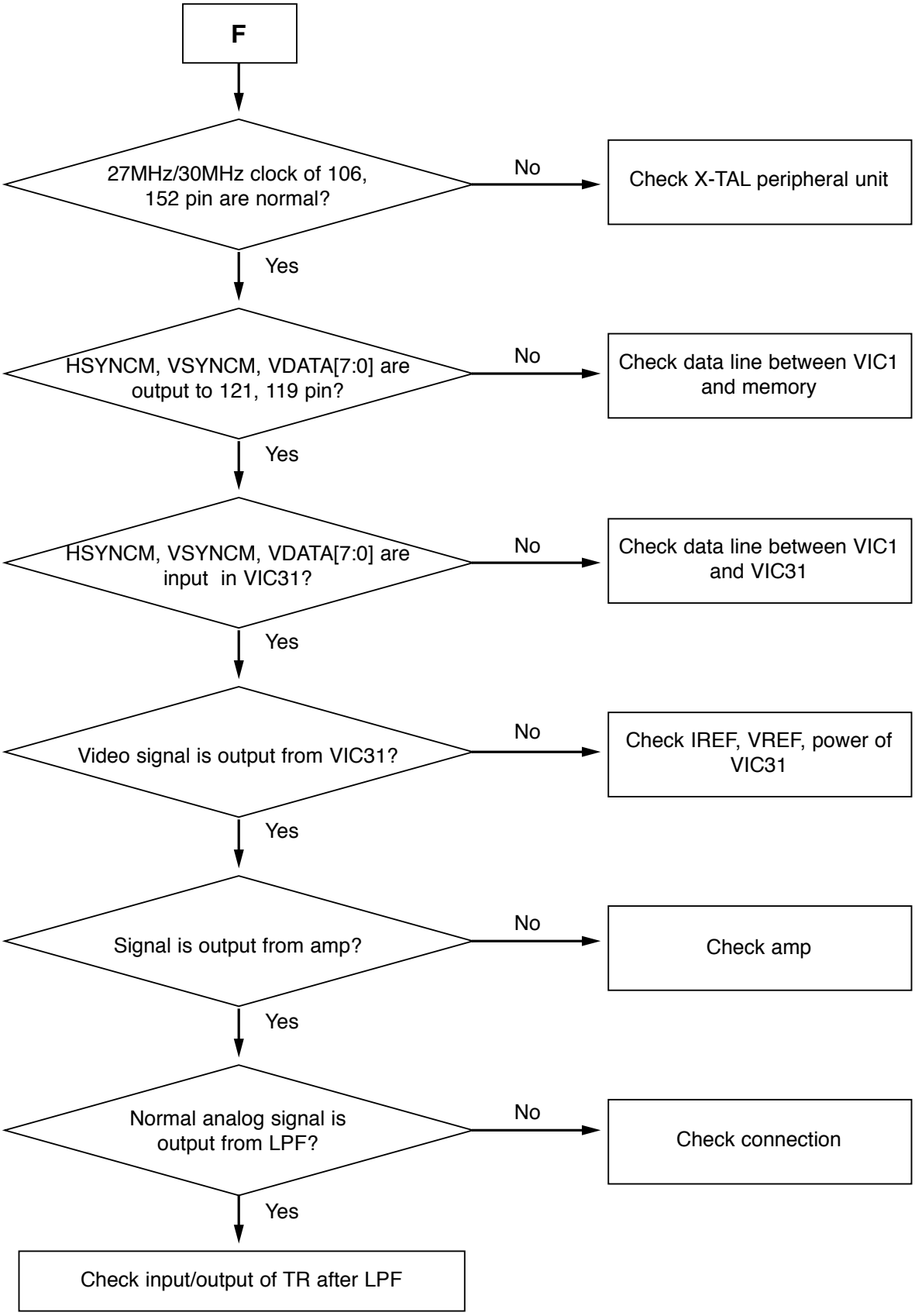

No LD ON
D
RIC1 51 is 'H'?
No
Yes
Check MIC1 6
RIC1 50
output is 180mV?
No
Yes
RIC1 50
output is 0V?
Yes
Divide RQ1 emitter terminal
voltage and 5V real voltage
difference into 12Ω
Yes
LD MPD error.
Replace Pick-up
No
Current exceeds 0.1A?
No
Yes
Open check
in related circuit
LD out
Pick-up replace

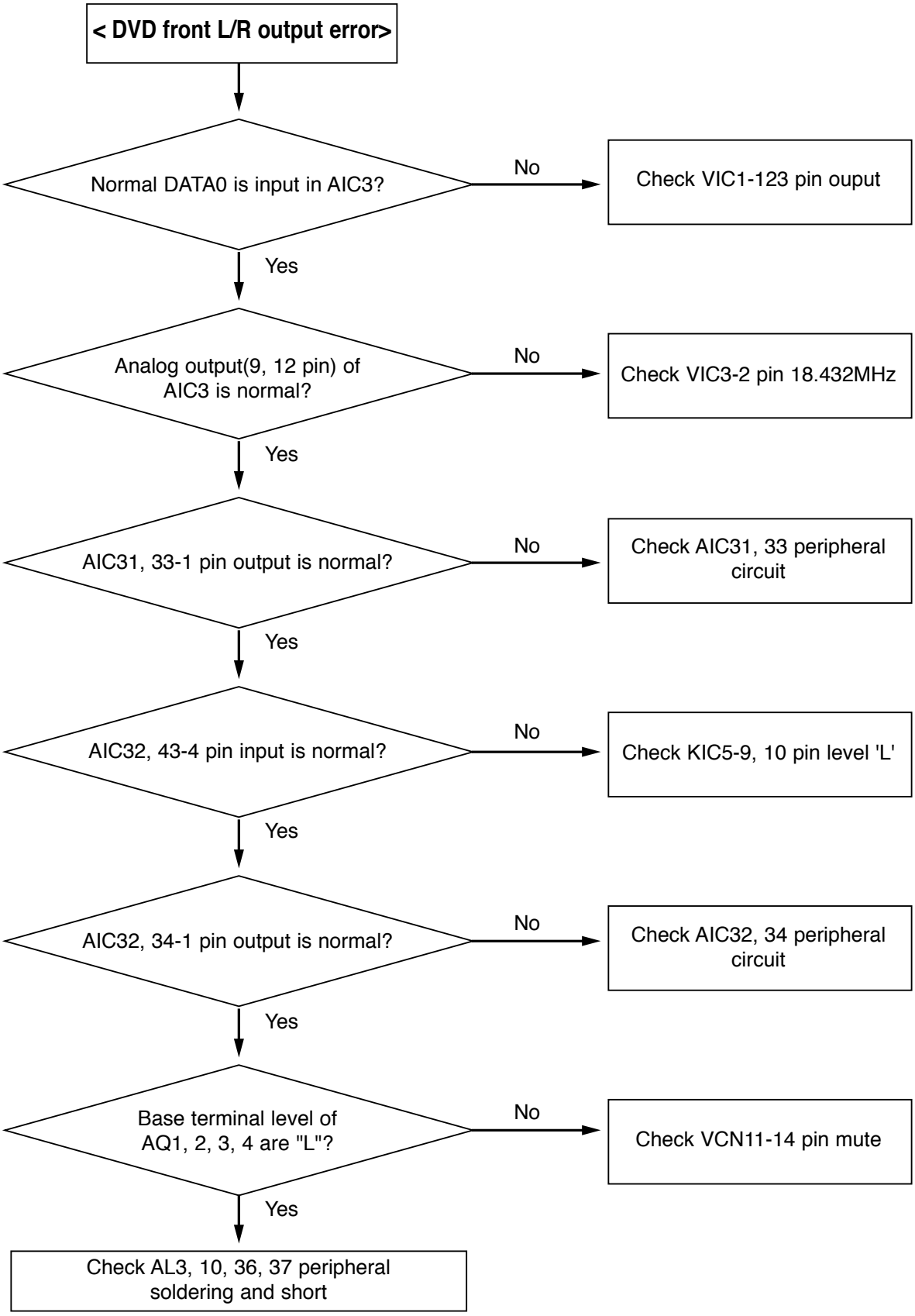

DVD play error
'NO DISK' appears after pickup moves up and down twice at power on?
No
Check DIC1, MIC1 peripheral short
Yes
33MHz clock is input in DIC1-33 pin and DIC6-43 pin?
No
Check 33MHz oscillating part
Yes
27MHz clock is input in DIC1-5 pin and DIC6-21 pin?
No
Check 27MHz oscillating part
Yes
Waveforms of MIC2 10-15/17-21pin are measured in all 8 bits like CH2 and CS2(MIC2-22 pin) WR(MIC-29 pin)/RD(MIC2-24 pin) signals swing?
No
Check MIC2 peripheral soldering
Yes
Signals are output from DIC1-36, 37, 38 pin?
No
Replace DIC1
DVD1 peripheral soldering and short check

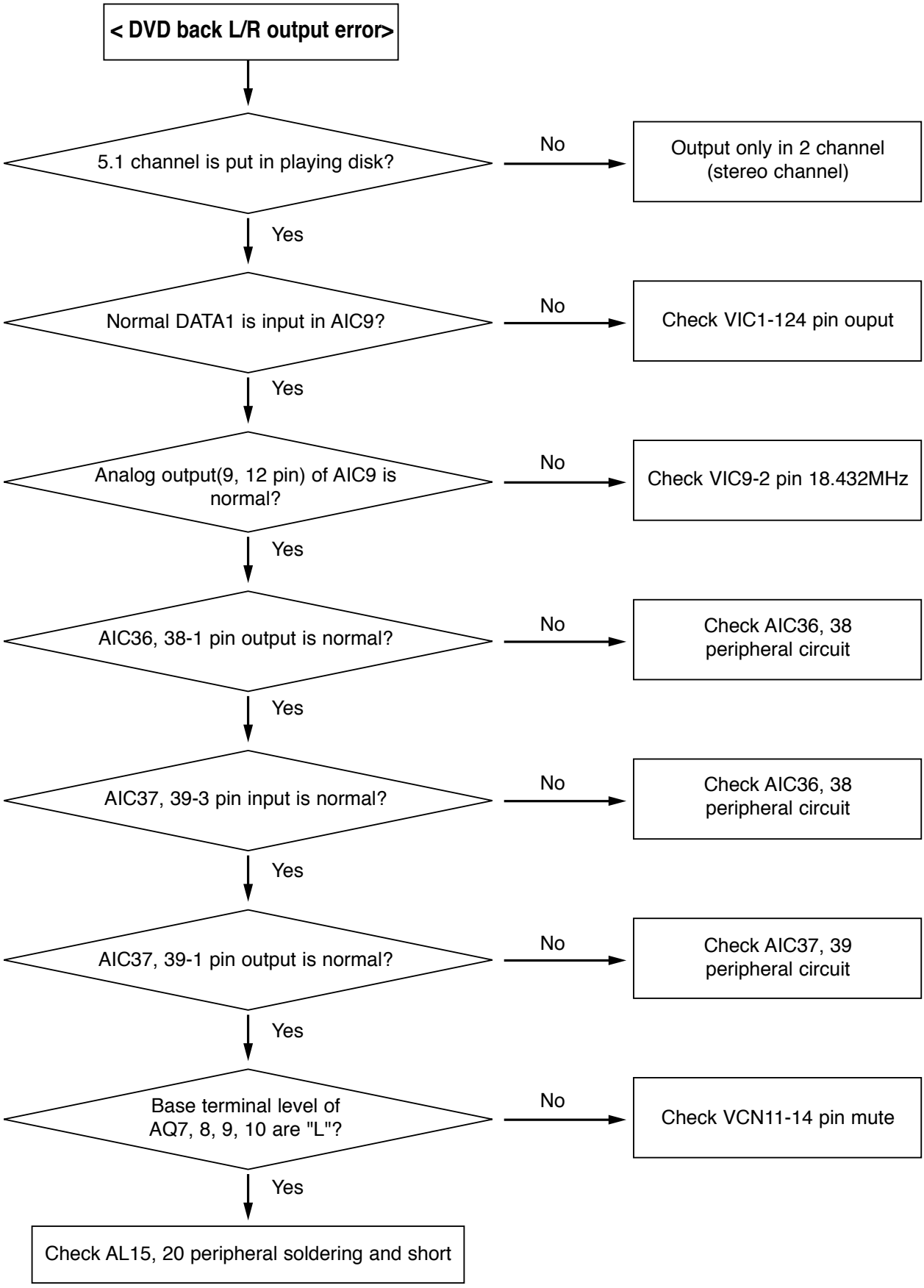

Key operation or remote control error
All power is measured correctly and front cable is properly connected?
No
Check all power and front cable
Yes
All clocks(20MHz, 16.9344MHz, 27MHz, 30MHz, 33MHz) of main PCB oscillate normally?
No
Check all clock oscillating parts
Yes
Common data bus line signal appears like CH2 of waveform?
No
Yes
CS2/RD/WR signals occur?
No
Check short pin out of micom common bus(8 bit)Check short or opening of micom Check soldering of micom and communication devices
Yes
Play?
No
Check DVD1 peripheral unit
E

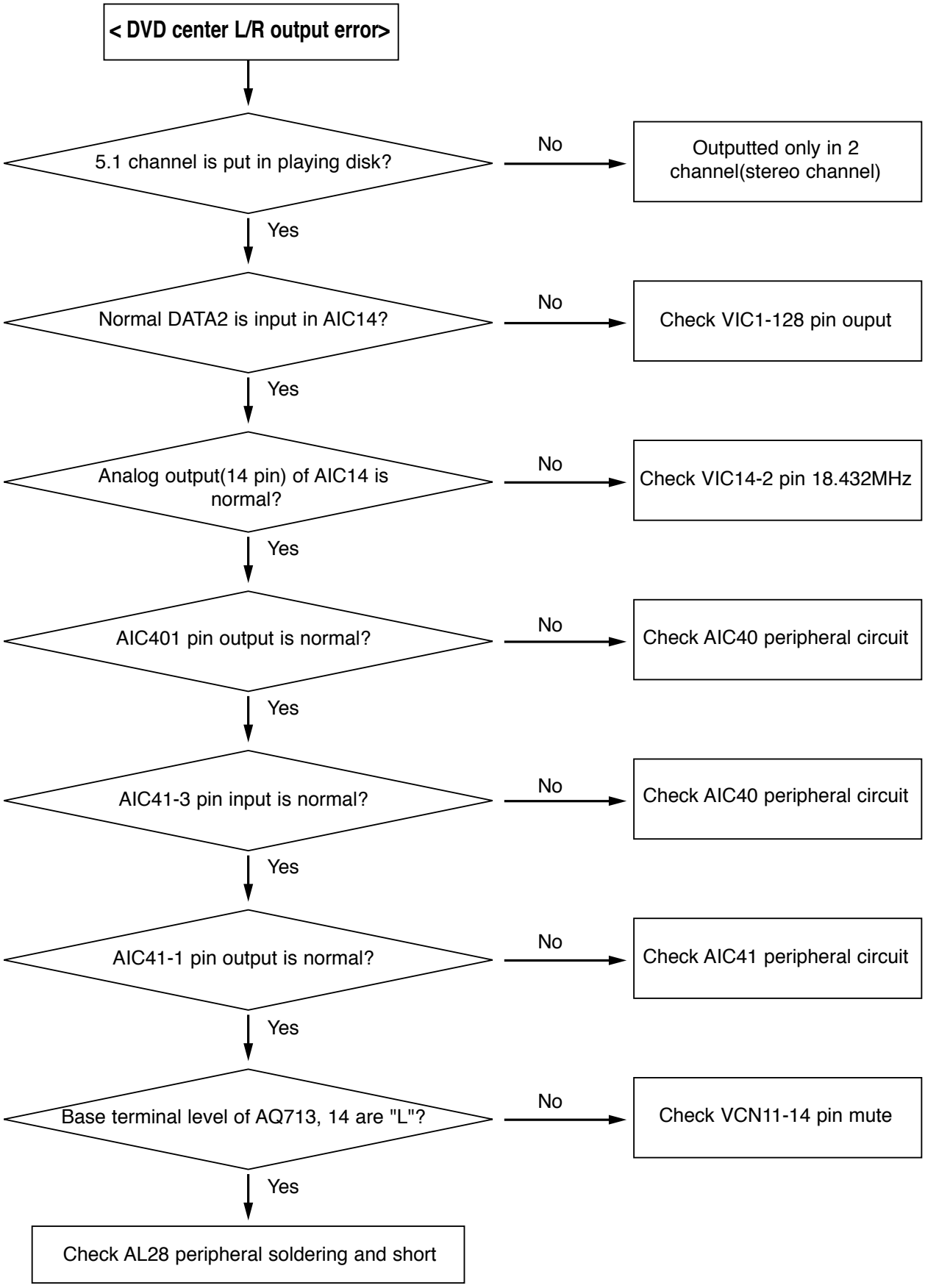

E
MIC6-12, 13 pin is fixed to 0V?
Yes
Check A/V decoder signal process block
No
MIC6-9, 10 pin is fixed to 0V?
Yes
Chekl DVD signal process block
No
MIC1-10 pin waveform state(0,1) changes whenever pressing front key?
Yes
Check MIC1 peripheral soldering (Including 12MHz oscillationg of front micom)
Yes
Check at front operation error

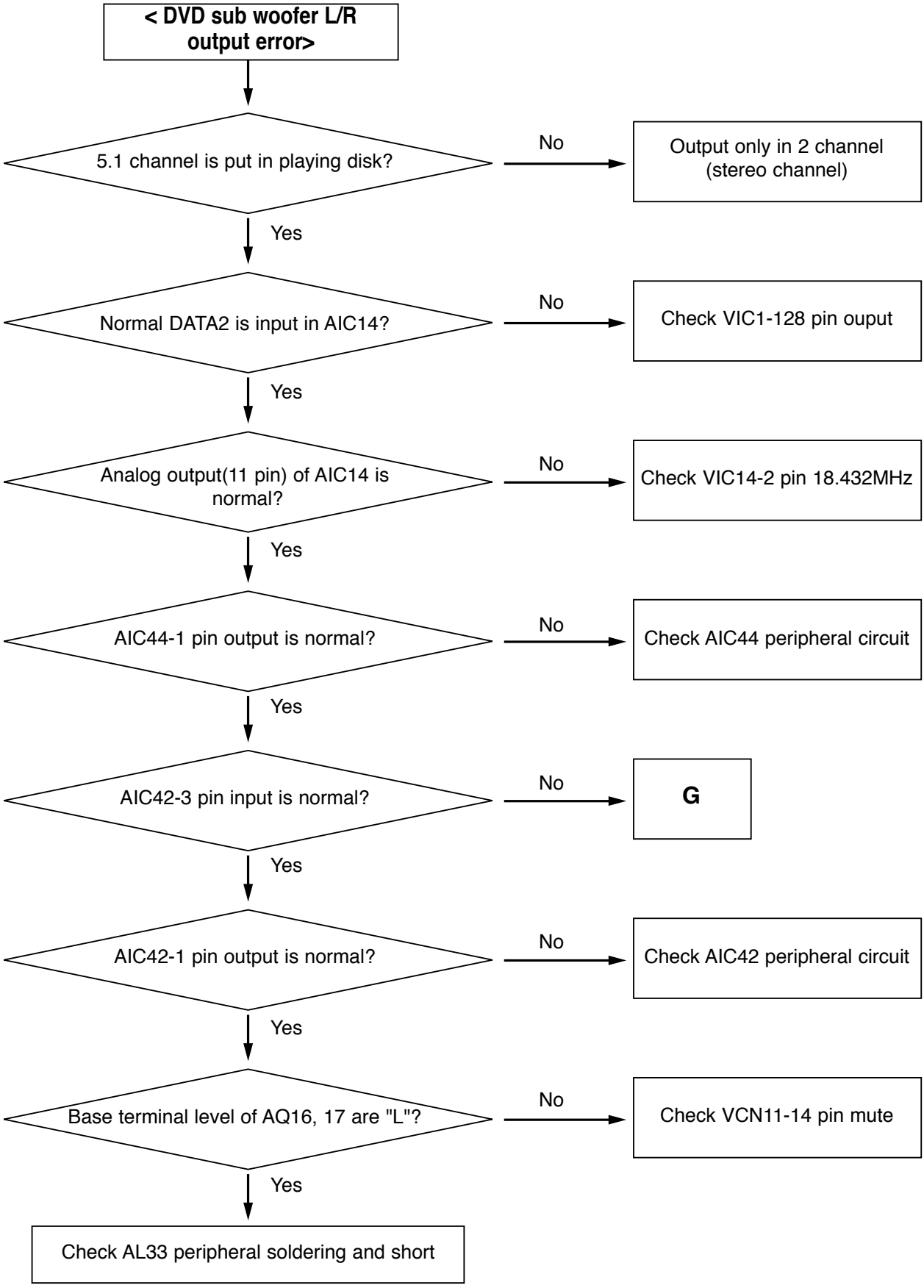

DVD video output error
Video play of video CD runs ?
No
F
Yes
Normal data are input in VIC8, VIC9? (2, 5, 11, 14 pin)
No
Check DIC6 connection
Yes
Normal data are output in VIC8, VIC9? (4, 7, 9, 12 pin)
No
Check DVC_SEL signal input in 1 pin
Check pin contact error of VIC1 (Check soldering and short)

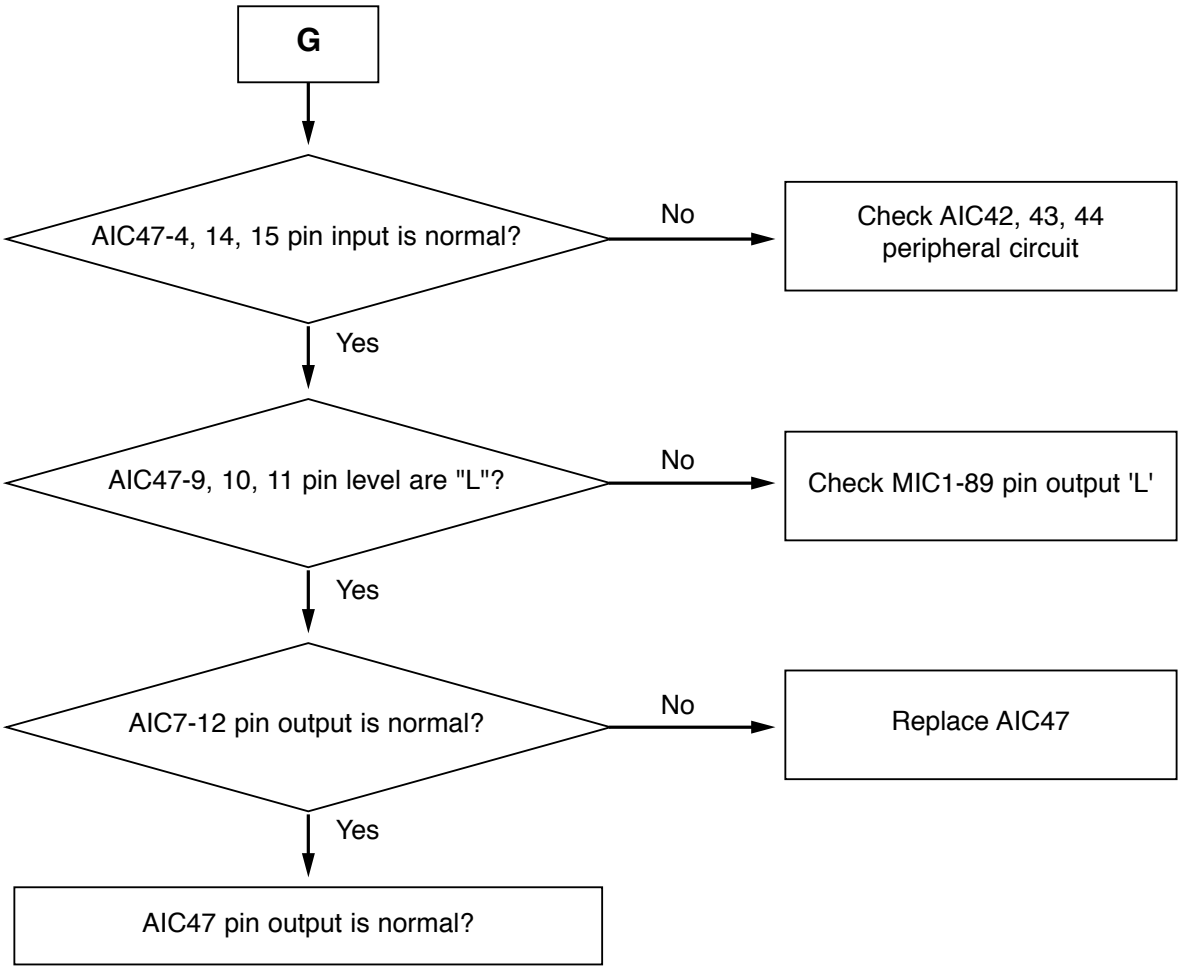

F
27MHz/30MHz clock of 106, 152 pin are normal?
No
Check X-TAL peripheral unit
Yes
HSYNCM, VSYNCM, VDATA[7:0] are output to 121, 119 pin?
No
Check data line between VIC1 and memory
Yes
HSYNCM, VSYNCM, VDATA[7:0] are input in VIC31?
No
Check data line between VIC1 and VIC31
Yes
Video signal is output from VIC31?
No
Check IREF, VREF, power of VIC31
Yes
Signal is output from amp?
No
Check amp
Yes
Normal analog signal is output from LPF?
No
Check connection
Yes
Check input/output of TR after LPF

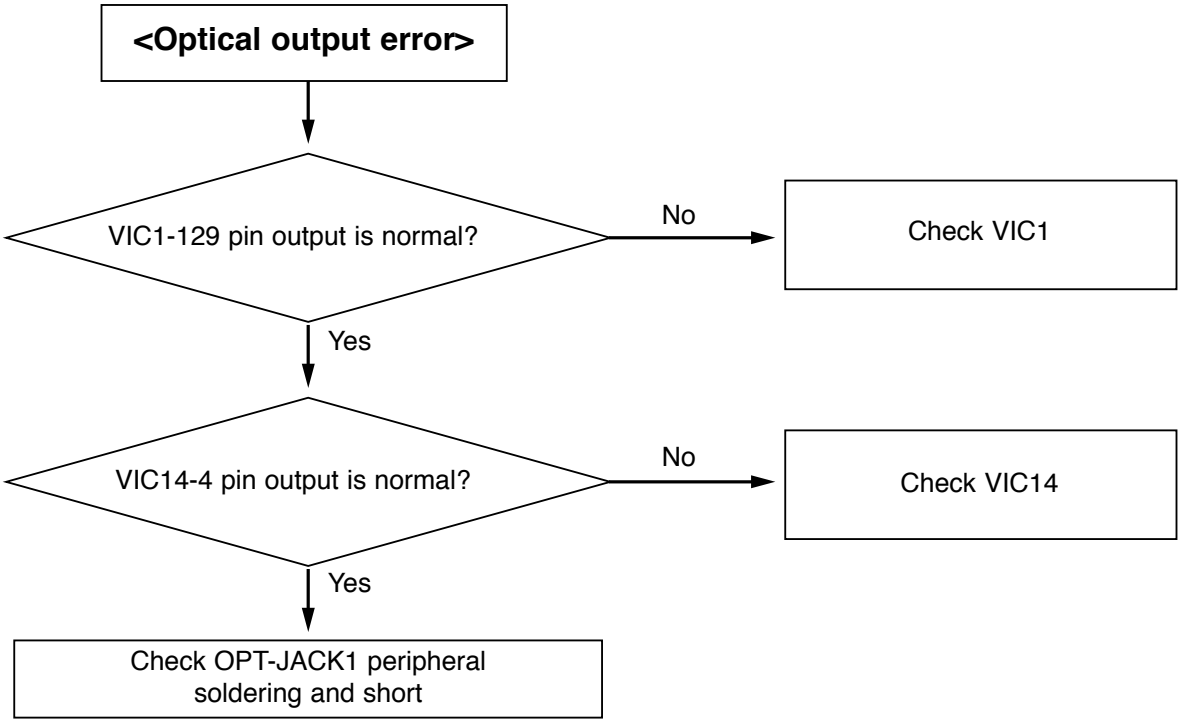

< DVD front L/R output error>
Normal DATA0 is input in AIC3?
No
Check VIC1-123 pin ouput
Yes
Analog output(9, 12 pin) of AIC3 is normal?
No
Check VIC3-2 pin 18.432MHz
Yes
AIC31, 33-1 pin output is normal?
No
Check AIC31, 33 peripheral circuit
Yes
AIC32, 43-4 pin input is normal?
No
Check KIC5-9, 10 pin level 'L'
Yes
AIC32, 34-1 pin output is normal?
No
Check AIC32, 34 peripheral circuit
Yes
Base terminal level of AQ1, 2, 3, 4 are "L"?
No
Check VCN11-14 pin mute
Yes
Check AL3, 10, 36, 37 peripheral soldering and short

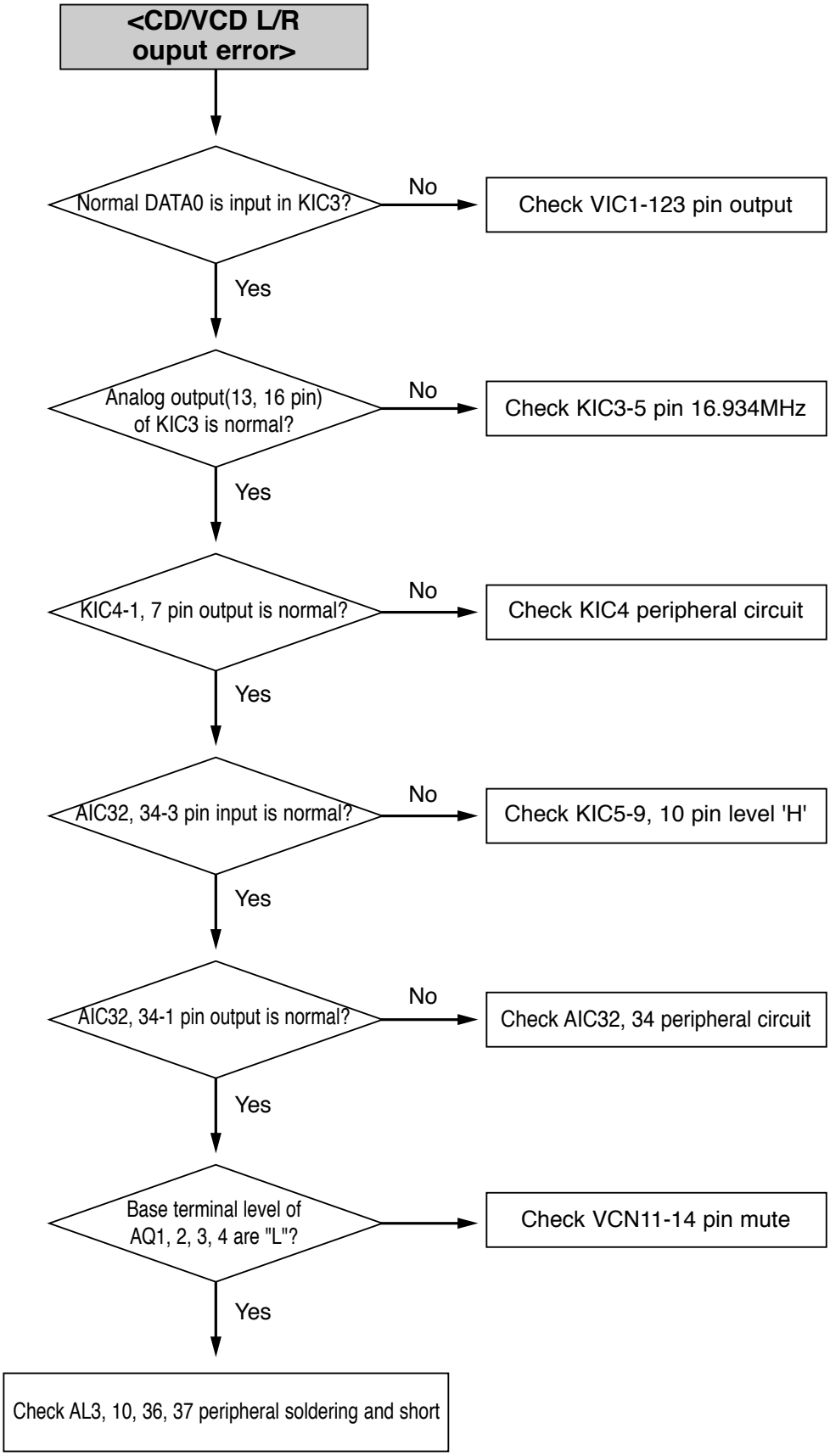

< DVD back L/R output error>
5.1 channel is put in playing disk?
No
Output only in 2 channel (stereo channel)
Yes
Normal DATA1 is input in AIC9?
No
Check VIC1-124 pin ouput
Yes
Analog output(9, 12 pin) of AIC9 is normal?
No
Check VIC9-2 pin 18.432MHz
Yes
AIC36, 38-1 pin output is normal?
No
Check AIC36, 38 peripheral circuit
Yes
AIC37, 39-3 pin input is normal?
No
Check AIC36, 38 peripheral circuit
Yes
AIC37, 39-1 pin output is normal?
No
Check AIC37, 39 peripheral circuit
Yes
Base terminal level of AQ7, 8, 9, 10 are "L"?
No
Check VCN11-14 pin mute
Yes
Check AL15, 20 peripheral soldering and short


< DVD center L/R output error>
5.1 channel is put in playing disk?
No
Outputted only in 2 channel(stereo channel)
Yes
Normal DATA2 is input in AIC14?
No
Check VIC1-128 pin ouput
Yes
Analog output(14 pin) of AIC14 is normal?
No
Check VIC14-2 pin 18.432MHz
Yes
AIC401 pin output is normal?
No
Check AIC40 peripheral circuit
Yes
AIC41-3 pin input is normal?
No
Check AIC40 peripheral circuit
Yes
AIC41-1 pin output is normal?
No
Check AIC41 peripheral circuit
Yes
Base terminal level of AQ713, 14 are "L"?
No
Check VCN11-14 pin mute
Yes
Check AL28 peripheral soldering and short


< DVD sub woofer L/R output error>
5.1 channel is put in playing disk?
No
Output only in 2 channel (stereo channel)
Yes
Normal DATA2 is input in AIC14?
No
Check VIC1-128 pin ouput
Yes
Analog output(11 pin) of AIC14 is normal?
No
Check VIC14-2 pin 18.432MHz
Yes
AIC44-1 pin output is normal?
No
Check AIC44 peripheral circuit
Yes
AIC42-3 pin input is normal?
No
G
Yes
AIC42-1 pin output is normal?
No
Check AIC42 peripheral circuit
Yes
Base terminal level of AQ16, 17 are "L"?
No
Check VCN11-14 pin mute
Yes
Check AL33 peripheral soldering and short


G
AIC47-4, 14, 15 pin input is normal?
No
Check AIC42, 43, 44 peripheral circuit
Yes
AIC47-9, 10, 11 pin level are "L"?
No
Check MIC1-89 pin output 'L'
Yes
AIC7-12 pin output is normal?
No
Replace AIC47
Yes
AIC47 pin output is normal?


<Optical output error>
VIC1-129 pin output is normal?
No
Check VIC1
Yes
VIC14-4 pin output is normal?
No
Check VIC14
Yes
Check OPT-JACK1 peripheral soldering and short


<CD/VCD L/R ouput error>
Normal DATA0 is input in KIC3?
No
Check VIC1-123 pin output
Yes
Analog output(13, 16 pin) of KIC3 is normal?
No
Check KIC3-5 pin 16.934MHz
Yes
KIC4-1, 7 pin output is normal?
No
Check KIC4 peripheral circuit
Yes
AIC32, 34-3 pin input is normal?
No
Check KIC5-9, 10 pin level 'H'
Yes
AIC32, 34-1 pin output is normal?
No
Check AIC32, 34 peripheral circuit
Yes
Base terminal level of AQ1, 2, 3, 4 are "L"?
Check VCN11-14 pin mute
Yes
Check AL3, 10, 36, 37 peripheral soldering and short

# MEMO

# 6. Exploded View and Parts List


Page

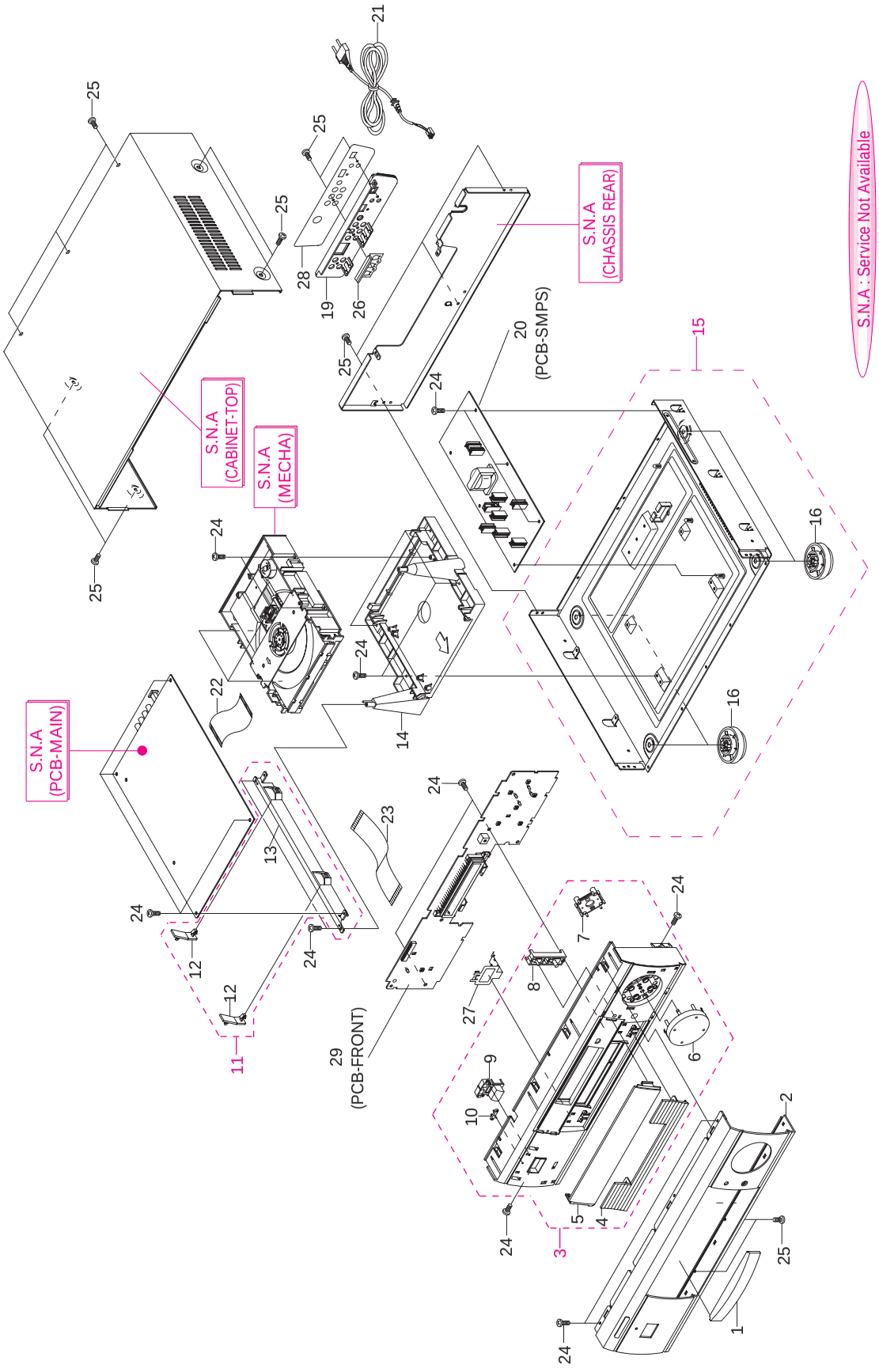
6-1 Cabinet Assembly (DVD858V) - - - - - - - - - - - - - - - - 6-2

6-2 Cabinet Assembly (DVD878KV) - - - - - - - - - - - - - - 6-4

6-3 Mechanical Parts - - - - - - - - - - - - - - - - - - - - - - - - - - 6-6

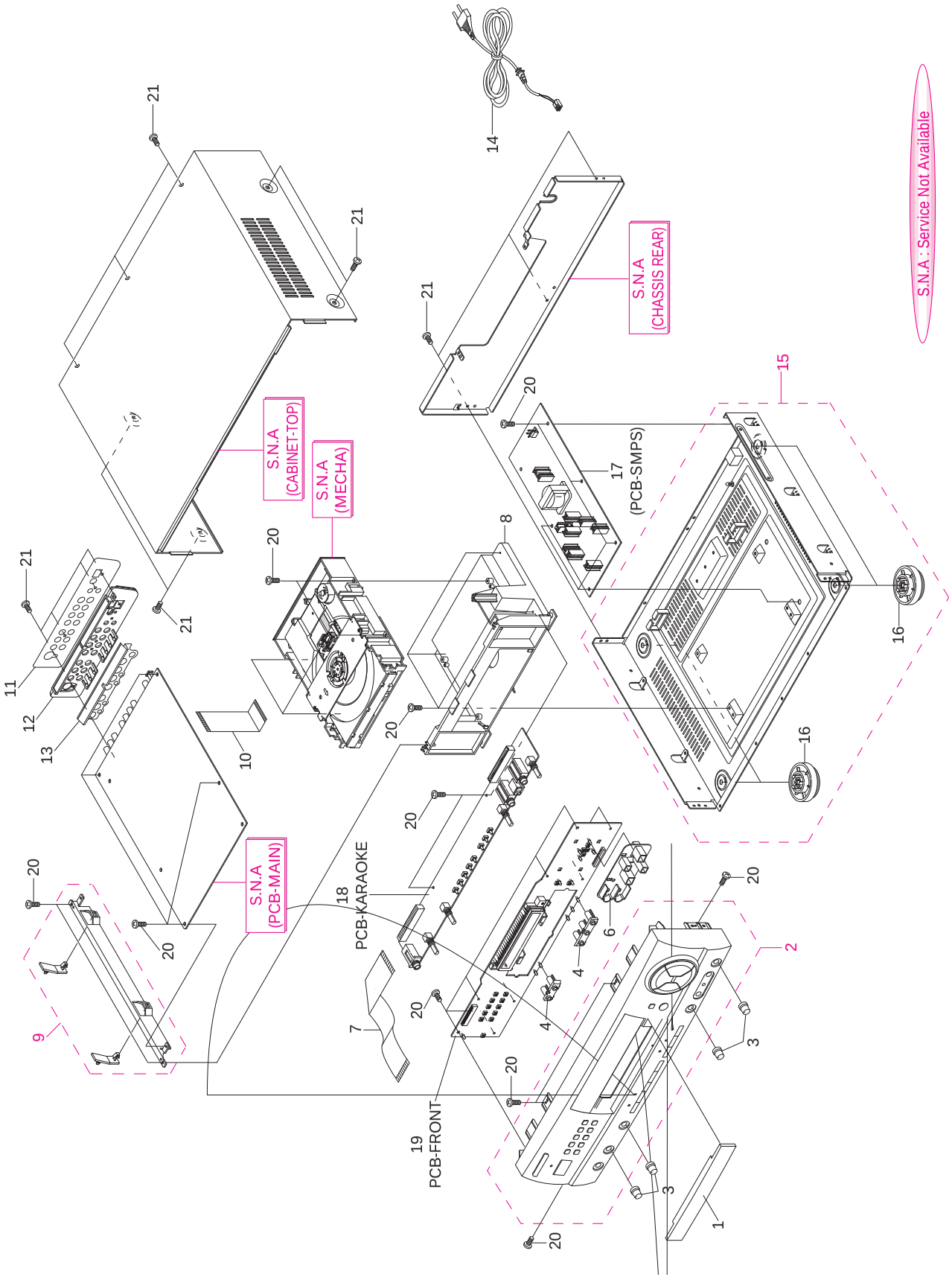
6-4 Remote Control Ass'y - - - - - - - - - - - - - - - - - - - - 6-8

# 6-1 Cabinet Assembly (DVD858V)



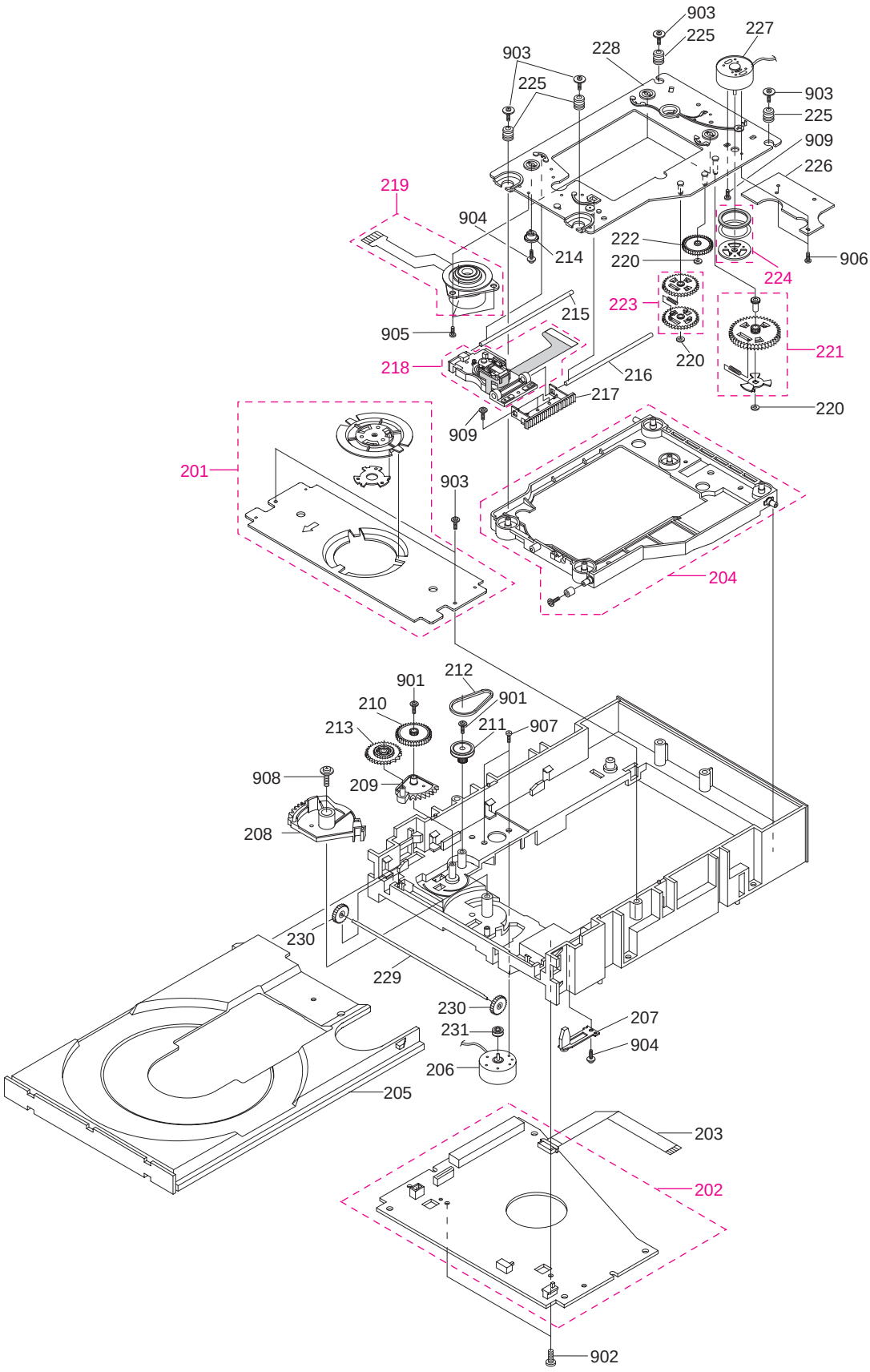
| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| 1 | AH95-50295A | ASSY-DOOR;DVD-905,ABS+PBS T0.2,DVD BADGE | |
| 2 | AH95-50239D | ASSY-COVER PANEL;DVD858V/CHN,AL+BADGE,GOLD BADG | |
| 3 | AH95-10321A | ASSY-CABINET FRONT;DVD-860,ABS,- | |
| 4 | AH63-30220A | COVER-CENTER;-,AL,-,T2.0,TITAN,HAIRLINE,-,D | |
| 5 | AH64-40401A | WINDOW-FLT;-,PMMA,V0,T2.5,VIOLET,-,DVD-86 | |
| 6 | AH95-50251A | ASSY-KNOB PLAY;DVD-860,ABS,- | |
| 7 | AH61-20438A | HOLDER-PLAY;-,ABS,HB,WHT,-,DVD-860 | |
| 8 | AH64-11144A | KNOB-OPEN;-,ABS94,HB,BLK,-,DVD-860 | |
| 9 | AH64-11143A | KNOB-POWER;-,ABS94,HB,BLK,-,DVD-860 | |
| 10 | AH64-40402A | INDICATOR-POWER;-,PMMA,HB,T2.5,MILK,-,DVD-860 | |
| 11 | AH95-50238A | ASSY-BRKT PCB;DVD-860K,SECC+NYLON,- | |
| 12 | AH61-20279A | HOLDER-PWB;NYLON66,-,-,-,VIP680T, | |
| 13 | AH61-10692A | BRACKET-PCB;-,SECC,-,T1.0,NTR,-,DVD-860K | |
| 14 | AH61-10694A | FRAME-CHASSIS;-,ABS94,HB,T3,L200,W180,H100,B | |
| 15 | AH95-10322A | ASSY-CABINET BOTTOM;DVD-860K,SECC+ABS,- | |
| 16 | AH95-50252A | ASSY-FOOT;DVD-860,ABS+EVA SPONGE,- | |
| 19 | AH63-30228A | COVER-REAR;-,ABS94,HB,T2,BLK,-,-,DVD-860 | |
| 20 | AH90-10727X | ASSY-PCB SMPS;DVD858V,CHN | |
| 21 | AH39-10002L | POWER CORD;CP2,KLCE-2F,2.15M,5239,VDE | |
| 22 | 3809-001024 | CABLE-FLAT;30V,80C,150MM,40P,1.25MM,UL289 | |
| 23 | 3809-001025 | CABLE-FLAT;30V,80C,270MM,28P,1.25MM,UL289 | |
| 24 | 6003-000276 | SCREW-TAPTITE;BH,+,B,M3,L10,ZPC(YEL),SWCH1018AK | |
| 25 | 6003-000275 | SCREW-TAPTITE;BH,+,B,M3,L10,BLK ,SWCH1018AK | |
| 26 | AH63-40163A | GROUND-REAR;-,PBS,T0.2,-,DVD-860 | |
| 27 | AH63-40161A | GROUND-FRONT;-,PBS,T0.2,-,DVD-860 | |
| 28 | AH64-60055A | INLAY-REAR;-,PVC SHHET,T0.3,L186.8 W36.2, | |
| 29 | AH90-10727U | ASSY- PCB FRONT;DVD858V,CHN | |

# 6-2 Cabinet Assembly (DVD878KV)



| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| 1 | AH95-50318A | ASSY-DOOR;DVD878KV,ABS+CU | |
| 2 | AH95-10320A | ASSY-CABINET FRONT;DVD-860K,ABS,- | |
| 3 | AH64-11147A | KNOB-VOLUME;-,ABS94,HB,BLK,-,DVD-860K | |
| 4 | AH61-20349A | HOLDER-KEY CON;-,ABS,HB,WHT,-,DVD-860K | |
| 6 | AH61-20347A | HOLDER-PLAY;-,ABS94,HB,BLK,-,DVD-860K | |
| 7 | 3809-001025 | CABLE-FLAT;30V,80C,270MM,28P,1.25MM,UL289 | |
| 8 | AH61-10690A | FRAME-CHASSIS;-,ABS 94,HB,T3,L250,W200,H100, | |
| 9 | AH95-50238A | ASSY-BRKT PCB;DVD-860K,SECC+NYLON,- | |
| 10 | 3809-001024 | CABLE-FLAT;30V,80C,150MM,40P,1.25MM,UL289 | |
| 11 | AH64-60055A | INLAY-REAR;-,PVC SHHET,T0.3,L186.8 W36.2, | |
| 12 | AH63-30228A | COVER-REAR;-,ABS94,HB,T2,BLK,-,-,DVD-860 | |
| 13 | AH63-40163A | GROUND-REAR;-,PBS,T0.2,-,DVD-860 | |
| 14 | AH39-10002L | POWER CORD;CP2,KLCE-2F,2.15M,5239,VDE | |
| 15 | AH95-10322B | ASSY-CABINET BOTTOM;DVD-878KV,SECC+ABS,GOLD | |
| 16 | AH95-50252A | ASSY-FOOT;DVD-860,ABS+EVA SPONGE,- | |
| 17 | AH90-10727X | ASSY-PCB SMPS;DVD858V,CHN | |
| 18 | AH90-10729A | ASSY-KARAOKE PCB;DVD-878KV,KARAORKE | |
| 19 | AH90-10727H | ASSY-PCB FRONT;DVD878KV,CHN | |
| 20 | 6003-000276 | SCREW-TAPTITE;BH,+,B,M3,L10,ZPC(YEL),SWCH1018AK | |
| 21 | 6003-000275 | SCREW-TAPTITE;BH,+,B,M3,L10,BLK ,SWCH1018AK | |

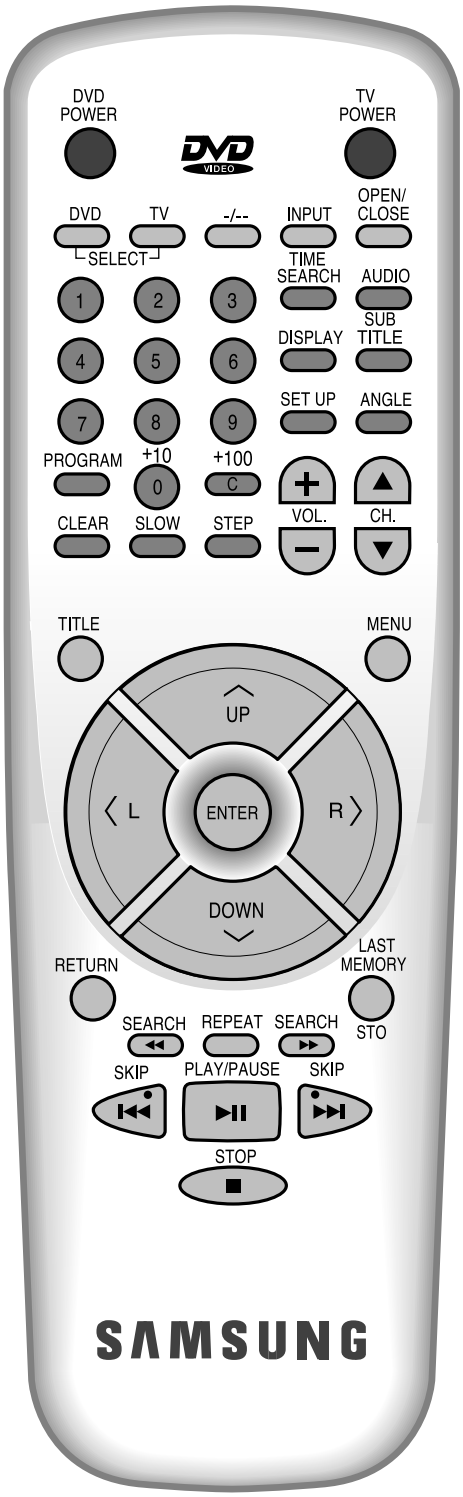
# 6-3 Mechanical Parts



| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| 201 | AH91-60117A | ASSY-DECK CLAMPER;DVD860,-,DP-1 | |
| 202 | AH90-10736C | ASSY-PCB DECK;DP-2,DVD905 | |
| 203 | 3708-001108 | CONNECTOR-FPC/FC/PIC;8P,1.0MM,ANGLE,SN | |
| 204 | AH61-60343A | SPRING-TRAY;DP,PLATE SPRING,SUS304WPB,-,-, | |
| 205 | AH72-60001A | TRAY-DVD ROM;DR-1,ABS,VO,IVORY,T1.5,HORIZEN | |
| 206 | AH31-10028A | MOTOR-FEED;DP,RF-300C-11440,D/V5.9,60HZ | |
| 207 | AH66-30087A | LEVER-OPEN SW;DP,KEPITAL,T0.7,L26,F20-03 BLK | |
| 208 | AH66-20194A | GEAR-CAM CENTER;DP,KEPITAL F20-03,M1.2,Z7,BLK, | |
| 209 | AH66-20183A | GEAR-CAM SUB;DP,KEPITAL FT2020,M1,2,Z7,-,PC | |
| 210 | AH66-20185A | GEAR-TRAY A;DP,KEPITAL F20-03,M0.4/M0.5,Z5 | |
| 211 | AH66-10024A | PULLEY-GEAR;DP,KEPITAL F20-03,BLK,DP-1 | |
| 212 | AH66-60033A | BELT-PULLEY;DP,NBR,T1.5,0.08,L82.7,BLK,DP- | |
| 213 | AH66-20184A | GEAR-TRAY;DP,KEPITAL F20-03,M0.5/M0.6,Z4 | |
| 214 | AH61-20424A | HOLDER-CAM;DP,KEPITAL,-,BLK,F20-03,DP-1 | |
| 215 | AH61-50284A | SHAFT-P.U(L);DP,SUS420J2,OD3,L79,S/FINISHIN | |
| 216 | AH61-50278A | SHAFT-P.U(R);DP,SUS420J2,OD3,L87,-,NTR,DP-1 | |
| 217 | AH66-20178A | RACK-SLIDE;DP,KEPITAL F20-03,WHT,M0.4,P1. | |
| 218 | AJ30-20035F | PICK-UP;SOH-D1A | |
| 219 | AH91-60127A | ASSY-MOTOR SPINDLE;DP-1,DVD860,- | |
| 220 | AH60-30020A | WASHER-PLAIN;DP,-,ID3.1,OD6,T0.3,RED COLOR, | |
| 221 | AH91-60120A | ASSY-GEAR-FEED-AU/AL;DP-1,DVD-860,- | |
| 222 | AH66-20182A | GEAR-FEED B;DP,KEPITAL F20-03,M0.4,Z44,WHT | |
| 223 | AH91-60121A | ASSY-GEAR-FEED-CU/CL;DP-1,DVD-860,- | |
| 224 | AH91-60122A | ASSY-GEAR-MAGNET;DP-1,DVD-860,- | |
| 225 | AH73-10017A | RUBBER-INSULATOR;RUBBER(LB-40),OD11,DP-1,- | |
| 226 | AH90-10694A | ASSY-PCB HALL SENSOR;SDR-130,DOM | |
| 227 | AH31-10028A | MOTOR-FEED;DP,RF-300C-11440,D/V5.9,60HZ | |
| 228 | AH91-60125A | ASSY-BRKT DECK;DP-1,DVD860,- | |
| 229 | AH61-50279A | SHAFT-SYNCRO;DP,SUM24L+ZN,OD2,L119,ZPC,YEL, | |
| 230 | AH66-20195A | GEAR-SYNCRO;DP,KEPITAL F20-03,M0.5,Z16,BLK | |
| 231 | AH66-10023A | PULLEY-MOTOR;DP,KEPITAL F20-03,BLK,DP-1 | |
| 901 | AH60-10151A | SCREW-TAP TITE;DP,SPEC6.8 ,PH,+,CP,M2,L5,ZPC | |
| 902 | AC60-10051A | SCREW-TAPPING;BH,-,-,M3,L8,FZY | |
| 903 | AH60-10143U | SCREW-TAP TITE;DP,PH,+,SPEC,TAP1.7,L5,ZPC | |
| 904 | AH60-10145A | SCREW-TAP TITE;DP,PH,+,SPEC OD5.5 FP,TAP1.7,L | |
| 905 | AH60-10147A | SCREW-MACHINE;DP,CH,+,FP,M2,L4,ZPC,SWRCH10A, | |
| 906 | AH60-10143Q | SCREW-MACHINE;DP,CH,+,FP,M1.7,L4,ZPC,SWRCH10 | |
| 907 | 6001-000012 | SCREW-MACHINE;CH,+,M1.7,L2.0,NYLOCK(WHT),SW | |
| 908 | AC60-10142A | SCREW-TAPPING;PWH,+,-,M3,L8,- | |

## 6-4 Remote Control Ass'y

**AH59-10087C REMOCON-ASSY**
AH64-50327A



# 7. Electrical Parts List

| Loc. No | New Part No | | Description and Specification | Remark |
|---|---|---|---|---|
| **20** | **AH90-10727X** | | **ASSY-PCB SMPS;DVD858V,DVD878KV** | |
| PC01 | 2305-001021 | | C-FILM,MPEF;100NF,20%,275V,TP,17.5X7X13.5, | |
| PC02 | 2305-001021 | ⚠ | C-FILM,MPEF;100NF,20%,275V,TP,17.5X7X13.5, | |
| PC03 | 2201-000916 | ⚠ | C-CERAMIC,DISC;100PF,10%,400V,Y5P,TP,10X8,10 | |
| PC04 | 2201-000916 | ⚠ | C-CERAMIC,DISC;100PF,10%,400V,Y5P,TP,10X8,10 | |
| PC05 | 2201-000812 | ⚠ | C-CERAMIC,DISC;2.2NF,20%,400V,Y5P,BK,11X7,7.5 | |
| PC06 | 2201-000812 | ⚠ | C-CERAMIC,DISC;2.2NF,20%,400V,Y5P,BK,11X7,7.5 | |
| PC10 | 2401-000342 | ⚠ | C-AL;100UF,20%,400V,WT,-,33X30,10MM | |
| PC11 | 2301-000140 | | C-FILM,PEF;10NF,10%,630V,BK,16.5X9.5X5.7X | |
| PC12 | 2201-000915 | | C-CERAMIC,DISC;100PF,10%,1KV,Y5P,TP,6X5,5 | |
| PC13 | B1102-0260 | | C-FILM;CQ 922 M 50V T 102-J ECQB1H102JF3 | |
| PC13A | 2301-000289 | | C-FILM,PEF;5.6NF,5%,50V,TP,6.5X5.5X3.0X5, | |
| PC14 | 2301-000129 | | C-FILM,PEF;100NF,5%,50V,TP,10X9X4.3X5,5MM | |
| PC15 | 2401-001919 | | C-AL;2.2UF,20%,50V,-,TP,4X7MM,5 | |
| PC17 | 2401-001939 | | C-AL;22UF,20%,50V,GP,BK,6.3X11MM,2. | |
| PC18 | 2301-000415 | | C-FILM,PEF;22NF,5%,50V,TP,6.5X10.5X4MM,5M | |
| PC31 | 2401-001125 | | C-AL;330UF,20%,25V,WT,TP,10X12.5,5M | |
| PC32 | 2401-001125 | | C-AL;330UF,20%,25V,WT,TP,10X12.5,5M | |
| PC33 | 2401-001125 | | C-AL;330UF,20%,25V,WT,TP,10X12.5,5M | |
| PC34 | 2401-001125 | | C-AL;330UF,20%,25V,WT,TP,10X12.5,5M | |
| PC36 | 2401-002162 | | C-AL;1000UF,20%,25V,GP,TP,10X20,5MM | |
| PC37 | 2401-001125 | | C-AL;330UF,20%,25V,WT,TP,10X12.5,5M | |
| PC38 | 2401-001992 | | C-AL;2200UF,20%,10V,GP,TP,10X20MM,5 | |
| PC39 | 2401-001125 | | C-AL;330UF,20%,25V,WT,TP,10X12.5,5M | |
| PC40 | 2401-001902 | | C-AL;100UF,20%,50V,GP,-,6.3X11,2.5 | |
| PC41 | 2401-001125 | | C-AL;330UF,20%,25V,WT,TP,10X12.5,5M | |
| PC42 | 2301-000129 | | C-FILM,PEF;100NF,5%,50V,TP,10X9X4.3X5,5MM | |
| PC43 | 2301-000129 | | C-FILM,PEF;100NF,5%,50V,TP,10X9X4.3X5,5MM | |
| PC45 | 2301-000129 | | C-FILM,PEF;100NF,5%,50V,TP,10X9X4.3X5,5MM | |
| PC46 | 2401-001507 | | C-AL;47UF,20%,16V,GP,TP,6.3X5,5 | |
| PC47 | 2401-001507 | | C-AL;47UF,20%,16V,GP,TP,6.3X5,5 | |
| PC48 | 2301-000129 | | C-FILM,PEF;100NF,5%,50V,TP,10X9X4.3X5,5MM | |
| PC49 | 2401-001507 | | C-AL;47UF,20%,16V,GP,TP,6.3X5,5 | |
| PC50 | 2301-000129 | | C-FILM,PEF;100NF,5%,50V,TP,10X9X4.3X5,5MM | |
| PC51 | 2401-001507 | | C-AL;47UF,20%,16V,GP,TP,6.3X5,5 | |
| PC52 | 2301-000129 | | C-FILM,PEF;100NF,5%,50V,TP,10X9X4.3X5,5MM | |
| PC53 | 2401-001396 | | C-AL;470UF,20%,25V,GP,TP,10X16MM,5M | |
| PC54 | 2401-002011 | | C-AL;100UF,20%,25V,GP,TP,6.3X11,5MM | |
| PCNO1 | 3711-000190 | ⚠ | CONNECTOR-HEADER;1WALL,2P,1R,7.92MM,STRAIGHT,SN | |
| PCNO2 | AH39-20559E | | LEAD CONNECTOR-ASSY;-,5264-18,51088-18,18P,350MM,1 | |
| PD01 | 0402-000103 | ⚠ | DIODE-BRIDGE;D2SBA60,600V,1.5A,- | |
| PD10 | 0402-000378 | | DIODE-RECTIFIER;EG01C,1000V,500MA,DO-41 | |
| PD11 | 0401-000101 | | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO | |
| PD12 | 0402-001013 | | DIODE-RECTIFIER;1SR153-400,400V,800MA,DO-41 | |
| PD31 | 0402-000383 | | DIODE-RECTIFIER;S2L20U,200V,1.5A,- | |
| PD32 | 0402-000431 | | DIODE-RECTIFIER;FML-M02S,200V,2.5A,TO-220F | |
| PD33 | 0402-000383 | | DIODE-RECTIFIER;S2L20U,200V,1.5A,- | |
| PD34 | 0402-000431 | | DIODE-RECTIFIER;FML-M02S,200V,2.5A,TO-220F | |
| PD35 | 0404-000128 | | DIODE-SCHOTTKY;FMB-G14L,45V,5A,TO-220F,TP | |
| PD36 | 0402-001013 | | DIODE-RECTIFIER;1SR153-400,400V,800MA,DO-41 | |

| Loc. No | New Part No | | Description and Specification | Remark |
|---|---|---|---|---|
| PD37 | 0402-001013 | | DIODE-RECTIFIER;1SR153-400,400V,800MA,DO-41 | |
| PD38 | 0402-001013 | | DIODE-RECTIFIER;1SR153-400,400V,800MA,DO-41 | |
| PD39 | 0402-001013 | | DIODE-RECTIFIER;1SR153-400,400V,800MA,DO-41 | |
| PD42 | 0402-000127 | | DIODE-RECTIFIER;1N4002,100V,1A,DO-41 | |
| PF01 | 3601-000238 | ⚠ | FUSE;T2AL 250V | |
| PIC1 | 1203-000304 | ⚠ | IC-PWM CONTROLLER;7552,DIP,8P,-,PLASTIC,30V,-,- | |
| PIC2 | B4161-0027 | ⚠ | PHOTO-COUPLER;PC817XF ST | |
| PIC3 | AC14-12006D | | IC;KA431Z,TO-92,TAPING | |
| PIC4 | 1203-001083 | | IC-VOLTAGE REGULATOR;3RF23,TO-202,4P,12.0MIL,PLAST | |
| PIC5 | B4008-1134 | | IC-VOLT REGU;PQ09RF11 SIP | |
| PIC8 | 1203-000122 | | IC-NEGA.FIXED REG.;7908,TO-220,3P,-,PLASTIC,-7.7/ | |
| PIC9 | 1203-000294 | | IC-POSI.FIXED REG.;7808,TO-220,3P,-,PLASTIC,7.7/8 | |
| PL02 | AC27-92001M | | INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,- | |
| PL11 | AC27-92001M | | INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,- | |
| PL31 | AC27-92001M | | INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,- | |
| PL32 | AC27-92001M | | INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,- | |
| PL33 | AC27-92001M | | INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,- | |
| PL34 | AC27-92001M | | INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,- | |
| PL35 | AC27-92001M | | INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,- | |
| PL36 | AC27-12001N | | COIL-CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,- | |
| PL37 | AC27-12001N | | COIL-CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,- | |
| PLO1 | AH29-30010C | ⚠ | FILTER-LINE NOISE;-,0.4MH MIN,-,AC250V,FTZ-FILTE | |
| PLO3 | AC29-30050A | ⚠ | FILTER-LINE NOISE;-,400UH,-,250V,- | |
| PQ1 | 0505-001044 | ⚠ | FET-SILICON;SSS3N80,N,800V,1.8A,5OHM,35W,T | |
| PQ2 | 0504-000118 | | TR-DIGITAL;KSR1003,NPN,300MW,22K-22K,TO-9 | |
| PQ3 | 0504-000118 | | TR-DIGITAL;KSR1003,NPN,300MW,22K-22K,TO-9 | |
| PQ4 | 0504-001003 | | TR-DIGITAL;KSR2003,PNP,300MW,22K-22K,TO-9 | |
| PR10 | 2006-000262 | | R-CEMENT;2.7OHM,10%,2W,CB,ST,7.5X11X20. | |
| PR13 | 2004-000801 | | R-METAL;33KOHM,5%,1/4W,AA,TP,2.4X6.4MM | |
| PR14 | 2004-001167 | | R-METAL;62KOHM,5%,1/4W,AD,TP,2.4X6.4MM | |
| PR15 | 2001-000362 | | R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| PR16 | 2001-000527 | | R-CARBON;22OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| PR17 | 2003-000273 | | R-METAL OXIDE;33KOHM,5%,2W,AA,TP,6X16MM | |
| PR18 | 2003-000273 | | R-METAL OXIDE;33KOHM,5%,2W,AA,TP,6X16MM | |
| PR19 | 2001-000273 | | R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| PR20 | 2001-000021 | | R-CARBON;27OHM,5%,1/4W,AA,TP,2.4X6.4MM | |
| PR21 | 2001-000554 | | R-CARBON;270OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| PR22 | 2001-000281 | | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| PR23 | 2006-000260 | | R-CEMENT;0.47OHM,10%,2W,CB,ST,7.5X11X20 | |
| PR24 | A1000-0560 | | R-METAL FILM;RM 1/8 T 512-F | |
| PR31 | 2001-000027 | | R-CARBON;100OHM,5%,1/4W,AA,TP,2.4X6.4MM | |
| PR32 | 2001-000105 | | R-CARBON;1.5KOHM,5%,1/4W,AA,TP,2.4X6.4M | |
| PR35 | 2001-000005 | | R-CARBON;390OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| PR36 | 2001-000221 | | R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| PR37 | 2001-000429 | | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| PR38 | 2004-000869 | | R-METAL;3KOHM,1%,1/8W,AA,TP,1.8X3.2MM | |
| PR39 | 2004-000459 | | R-METAL;2.2KOHM,1%,1/8W,AA,TP,1.8X3.2M | |
| PR40 | 2003-000148 | | R-METAL OXIDE;100OHM,5%,2W,AE,TP,6X16MM | |
| PR41 | 2001-000780 | | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| PR41A | 2001-000780 | | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| PR41B | 2001-000780 | | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| PT1 | AH26-22001A | ⚠ | TRANS-SWITCHING;110-220V,UL/CSA,ER3530,0.6,ST, | |
| PVA1 | 1405-000186 | | VARISTOR;470V,4500A,17X12MM,TP | |
| PZD11 | 0403-000555 | | DIODE-ZENER;MTZ30D,30V,29.02-30.51V,500MW, | |
| PZD12 | 0403-000539 | | DIODE-ZENER;MTZ18C,18V,17.42-18.33V,500MW, | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| PZD13 | 0403-000294 | DIODE-ZENER;MTZ4.7B,4.7V,4.55-4.80V,500MW, | |
| PZD31 | 0403-000551 | DIODE-ZENER;MTZ3.9B,3.9V,3.89-4.16V,500MW, | |
| | DO NOT ORDER | **ASSY-PCB MAIN;DVD878KV,CHN** | **(S.N.A)** |
| AC1 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC10 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC11 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC12 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| AC13 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC15 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| AC16 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| AC17 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | DVD878KV ONLY |
| AC18 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC19 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| AC2 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| AC20 | 2203-001554 | C-CERAMIC,CHIP;1.8NF,10%,50V,X7R,TP,1608,- | |
| AC21 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC22 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| AC23 | 2203-001703 | C-CERAMIC,CHIP;560PF,10%,50V,X7R,TP,1608,- | |
| AC24 | 2203-001559 | C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,1608,1.6MM | |
| AC25 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | DVD878KV ONLY |
| AC26 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC3 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC30 | 2401-000907 | C-AL;22UF,20%,16V,GP,-,5X11,2MM | |
| AC31 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| AC32 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC33 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| AC34 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC35 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC36 | 2203-001554 | C-CERAMIC,CHIP;1.8NF,10%,50V,X7R,TP,1608,- | |
| AC37 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| AC38 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC39 | 2401-000907 | C-AL;22UF,20%,16V,GP,-,5X11,2MM | |
| AC4 | 2203-001554 | C-CERAMIC,CHIP;1.8NF,10%,50V,X7R,TP,1608,- | |
| AC40 | 2203-001703 | C-CERAMIC,CHIP;560PF,10%,50V,X7R,TP,1608,- | |
| AC41 | 2203-001559 | C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,1608,1.6MM | |
| AC42 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC43 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| AC44 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC45 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC46 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| AC47 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| AC48 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC49 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC5 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| AC50 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| AC51 | 2203-001554 | C-CERAMIC,CHIP;1.8NF,10%,50V,X7R,TP,1608,- | |
| AC52 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| AC53 | 2401-000907 | C-AL;22UF,20%,16V,GP,-,5X11,2MM | |
| AC54 | 2203-001703 | C-CERAMIC,CHIP;560PF,10%,50V,X7R,TP,1608,- | |
| AC55 | 2203-001559 | C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,1608,1.6MM | |
| AC56 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC57 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC58 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| AC6 | 2401-000907 | C-AL;22UF,20%,16V,GP,-,5X11,2MM | |
| AC61 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| AC62 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC63 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC64 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC65 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| AC66 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC67 | 2203-001554 | C-CERAMIC,CHIP;1.8NF,10%,50V,X7R,TP,1608,- | |
| AC68 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC69 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC7 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC70 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| AC71 | 2401-000907 | C-AL;22UF,20%,16V,GP,-,5X11,2MM | |
| AC72 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| AC73 | 2203-001703 | C-CERAMIC,CHIP;560PF,10%,50V,X7R,TP,1608,- | |
| AC74 | 2203-001559 | C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,1608,1.6MM | |
| AC75 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC76 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC77 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| AC78 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| AC79 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC8 | 2203-001703 | C-CERAMIC,CHIP;560PF,10%,50V,X7R,TP,1608,- | |
| AC80 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC81 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| AC82 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| AC83 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC84 | 2203-001554 | C-CERAMIC,CHIP;1.8NF,10%,50V,X7R,TP,1608,- | |
| AC85 | 2401-000907 | C-AL;22UF,20%,16V,GP,-,5X11,2MM | |
| AC86 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| AC87 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC88 | 2203-001703 | C-CERAMIC,CHIP;560PF,10%,50V,X7R,TP,1608,- | |
| AC89 | 2203-001559 | C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,1608,1.6MM | |
| AC9 | 2203-001559 | C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,1608,1.6MM | |
| AC90 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC93 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| AC94 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC97 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AC98 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| AD1 | 0401-000008 | DIODE-SWITCHING;DAN217,80V,100MA,200MW,4NS,SOT | |
| AD2 | 0401-000008 | DIODE-SWITCHING;DAN217,80V,100MA,200MW,4NS,SOT | |
| AD3 | 0401-000008 | DIODE-SWITCHING;DAN217,80V,100MA,200MW,4NS,SOT | |
| AD4 | 0401-000008 | DIODE-SWITCHING;DAN217,80V,100MA,200MW,4NS,SOT | |
| AIC14 | 1002-001051 | IC-D/A CONVERTER;PCM1723E,16BIT,SOP,24P,204MIL, | |
| AIC3 | 1002-001052 | IC-D/A CONVERTER;PCM1720E,16BIT,SOP,20P,-,-,ST, | |
| AIC31 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| AIC32 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| AIC33 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| AIC34 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| AIC35 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | DVD878KV ONLY |
| AIC36 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| AIC37 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| AIC38 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| AIC39 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| AIC40 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| AIC41 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| AIC42 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| AIC43 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| AIC44 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| AIC47 | AH14-10004T | IC-ANALOG M/PLEXER;MC14053BD,SOP,TAPE 16P ANALOG | |
| AIC9 | 1002-001052 | IC-D/A CONVERTER;PCM1720E,16BIT,SOP,20P,-,-,ST, | |
| AL1 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL10 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| AL11 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL12 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL13 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL14 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL15 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| AL16 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL17 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL18 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL19 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL2 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL20 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| AL21 | 3301-000325 | CORE-FERRITE BEAD;AB,3.2X2.5X1.3MM,-,- | |
| AL22 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL23 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL24 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| AL25 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL26 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL27 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL28 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| AL29 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL3 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| AL30 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL31 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL32 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL33 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| AL34 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL35 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL36 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| AL37 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| AL38 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL39 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL4 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL40 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL5 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL51 | 2007-000029 | R-CHIP;0OHM,5%,1/10W,DA,TP,2012 | |
| AL52 | 2007-000029 | R-CHIP;0OHM,5%,1/10W,DA,TP,2012 | |
| AL6 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | DVD878KV ONLY |
| AL7 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL8 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| AL9 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | DVD878KV ONLY |
| AQ1 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| AQ10 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| AQ11 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| AQ12 | 0501-000314 | TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,TP,90- | |
| AQ13 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| AQ14 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| AQ15 | 0504-000156 | TR-DIGITAL;KSR2103,PNP,200MW,22K-22K,SOT- | |
| AQ16 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| AQ17 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| AQ18 | 0504-000128 | TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23, | |
| AQ2 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| AQ3 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| AQ4 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| AQ6 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | DVD878KV ONLY |
| AQ7 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| AQ8 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| AQ9 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| AR1 | 2007-000097 | R-CHIP;47KOHM,5%,1/16W,DA,TP,1608 | |
| AR10 | 2007-000458 | R-CHIP;18KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| AR101 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| AR102 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| AR103 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| AR104 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| AR105 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| AR107 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| AR11 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR110 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| AR111 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| AR112 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| AR12 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | |
| AR13 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| AR14 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR15 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR16 | 2007-000539 | R-CHIP;200OHM,5%,1/16W,DA,TP,1608 | |
| AR17 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR18 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR19 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR2 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR20 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR21 | 2007-000097 | R-CHIP;47KOHM,5%,1/16W,DA,TP,1608 | |
| AR22 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | |
| AR23 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR25 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR26 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR28 | 2007-000458 | R-CHIP;18KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| AR29 | 2007-001240 | R-CHIP;910OHM,5%,1/16W,DA,TP,1608 | |
| AR3 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR30 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| AR31 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| AR32 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR33 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | |
| AR36 | 2007-000082 | R-CHIP;3.3KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| AR37 | 2007-000092 | R-CHIP;15KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| AR38 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR39 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR4 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR40 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR41 | 2007-000097 | R-CHIP;47KOHM,5%,1/16W,DA,TP,1608 | |
| AR42 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR43 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | |
| AR44 | 2007-001240 | R-CHIP;910OHM,5%,1/16W,DA,TP,1608 | |
| AR45 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| AR46 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| AR47 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | |
| AR48 | 2007-000091 | R-CHIP;12KOHM,5%,1/16W,DA,TP,1608 | |
| AR49 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR5 | 2007-001240 | R-CHIP;910OHM,5%,1/16W,DA,TP,1608 | |
| AR50 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR51 | 2007-000539 | R-CHIP;200OHM,5%,1/16W,DA,TP,1608 | |
| AR52 | 2007-000097 | R-CHIP;47KOHM,5%,1/16W,DA,TP,1608 | |
| AR53 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR54 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR55 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR56 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR57 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR58 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR59 | 2007-001240 | R-CHIP;910OHM,5%,1/16W,DA,TP,1608 | |
| AR6 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| AR60 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| AR61 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR62 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | |
| AR64 | 2007-000091 | R-CHIP;12KOHM,5%,1/16W,DA,TP,1608 | |
| AR65 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | |
| AR67 | 2007-000076 | R-CHIP;330OHM,5%,1/16W,DA,TP,1608 | |
| AR68 | 2007-000075 | R-CHIP;220OHM,5%,1/16W,DA,TP,1608 | |
| AR69 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| AR7 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR70 | 2007-000097 | R-CHIP;47KOHM,5%,1/16W,DA,TP,1608 | |
| AR71 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR72 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR73 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR74 | 2007-001240 | R-CHIP;910OHM,5%,1/16W,DA,TP,1608 | |
| AR75 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| AR76 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR77 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR78 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | |
| AR79 | 2007-000091 | R-CHIP;12KOHM,5%,1/16W,DA,TP,1608 | |
| AR8 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR80 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | |
| AR81 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR82 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR83 | 2007-000097 | R-CHIP;47KOHM,5%,1/16W,DA,TP,1608 | |
| AR84 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR85 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR86 | 2007-001240 | R-CHIP;910OHM,5%,1/16W,DA,TP,1608 | |
| AR87 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| AR88 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR89 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR9 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | |
| AR90 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR91 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| AR92 | 2007-000708 | R-CHIP;3.9KOHM,1%,1/16W,DA,TP,1608 | |
| AR93 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | |
| AR94 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | |
| AR95 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| AR96 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| AR98 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| AR99 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| C101 | 2203-001559 | C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,1608,1.6MM | |
| C11 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| C12 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| C17 | 2401-000907 | C-AL;22UF,20%,16V,GP,-,5X11,2MM | |
| C22 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| C23 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| C25 | 2401-000907 | C-AL;22UF,20%,16V,GP,-,5X11,2MM | |
| C29 | 2401-000907 | C-AL;22UF,20%,16V,GP,-,5X11,2MM | |
| C3 | 2401-000907 | C-AL;22UF,20%,16V,GP,-,5X11,2MM | |
| C30 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| C31 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| C35 | 2401-000907 | C-AL;22UF,20%,16V,GP,-,5X11,2MM | |
| C36 | 2203-001034 | C-CERAMIC,CHIP;5.6NF,10%,50V,X7R,1608,-,TP | |
| C38 | 2203-001034 | C-CERAMIC,CHIP;5.6NF,10%,50V,X7R,1608,-,TP | |
| C39 | 2203-001034 | C-CERAMIC,CHIP;5.6NF,10%,50V,X7R,1608,-,TP | |
| C40 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| C42 | 2203-005012 | C-CERAMIC,CHIP;150NF,20%,16V,Y5V,TP,1608,- | |
| C43 | 2401-000907 | C-AL;22UF,20%,16V,GP,-,5X11,2MM | |
| C46 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| C48 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| C6 | 2401-000907 | C-AL;22UF,20%,16V,GP,-,5X11,2MM | |
| CN1 | 3708-001085 | CONNECTOR-FPC/FC/PIC;40P,1.25MM,STRAIGHT,SN | |
| D101 | 0401-000008 | DIODE-SWITCHING;DAN217,80V,100MA,200MW,4NS,SOT | |
| DA1 | 0401-000008 | DIODE-SWITCHING;DAN217,80V,100MA,200MW,4NS,SOT | |
| DA2 | 0401-000008 | DIODE-SWITCHING;DAN217,80V,100MA,200MW,4NS,SOT | |
| DA3 | 0401-000008 | DIODE-SWITCHING;DAN217,80V,100MA,200MW,4NS,SOT | |
| DA4 | 0401-000008 | DIODE-SWITCHING;DAN217,80V,100MA,200MW,4NS,SOT | |
| DA5 | 0401-000008 | DIODE-SWITCHING;DAN217,80V,100MA,200MW,4NS,SOT | |
| DC1 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC10 | 2203-000308 | C-CERAMIC,CHIP;120PF,5%,50V,NPO,TP,1608,- | |
| DC100 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC11 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC12 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| DC13 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC14 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC15 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC17 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC18 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC18D | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC19 | 2401-001895 | C-AL;100UF,20%,16V,GP,BK,6.3X11MM,2 | |
| DC2 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC20 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC21 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC22 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC23 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| DC24 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC25 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC26 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| DC27 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC28 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC29 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| DC30 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| DC31 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC32 | 2203-001636 | C-CERAMIC,CHIP;33PF,5%,50V,NPO,TP,1608,1.6MM | |
| DC35 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| DC36 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC37 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC38 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC39 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC40 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC41 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC42 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC43 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC44 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC47 | 2203-000384 | C-CERAMIC,CHIP;15PF,5%,50V,NPO,TP,1608,- | |
| DC48 | 2203-000384 | C-CERAMIC,CHIP;15PF,5%,50V,NPO,TP,1608,- | |
| DC49 | 2203-001559 | C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,1608,1.6MM | |
| DC5 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC50 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC51 | 2203-001636 | C-CERAMIC,CHIP;33PF,5%,50V,NPO,TP,1608,1.6MM | |
| DC52 | 2203-001636 | C-CERAMIC,CHIP;33PF,5%,50V,NPO,TP,1608,1.6MM | |
| DC53 | 2203-000426 | C-CERAMIC,CHIP;18PF,5%,50V,NPO,TP,1608,- | DVD878KV ONLY |
| DC530 | 2203-000426 | C-CERAMIC,CHIP;18PF,5%,50V,NPO,TP,1608,- | DVD858V ONLY |
| DC54 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| DC55 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC56 | 2203-001636 | C-CERAMIC,CHIP;33PF,5%,50V,NPO,TP,1608,1.6MM | |
| DC57 | 2203-000384 | C-CERAMIC,CHIP;15PF,5%,50V,NPO,TP,1608,- | |
| DC58 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC59 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC6 | 2203-001632 | C-CERAMIC,CHIP;330PF,5%,50V,CH,TP,1608,1.6MM | |
| DC60 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC61 | 2203-001632 | C-CERAMIC,CHIP;330PF,5%,50V,CH,TP,1608,1.6MM | |
| DC62 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| DC7 | 2203-001632 | C-CERAMIC,CHIP;330PF,5%,50V,CH,TP,1608,1.6MM | |
| DC8 | 2203-001397 | C-CERAMIC,CHIP;2.2NF,5%,50V,COG,1608,-,TP | |
| DC9 | 2203-001634 | C-CERAMIC,CHIP;33NF,10%,50V,X7R,TP,1608,1.6MM | |
| DD1 | 0405-000106 | DIODE-VARACTOR;1SV228,15V,10NA,SOT-23,TP | |
| DIC1 | AH13-10030F | IC-ASIC;-,TC90A19F,QFP,100,DATA PROC.I | |
| DIC10 | 0801-000885 | IC-CMOS LOGIC;7S04,INVERTER,SOP,5P,150MIL,SI | |
| DIC11 | 0801-002166 | IC-CMOS LOGIC;7SHU04,INVERTER GATE,SOP,5P,6. | |
| DIC12 | 0801-002166 | IC-CMOS LOGIC;7SHU04,INVERTER GATE,SOP,5P,6. | |
| DIC13 | 0801-002096 | IC-CMOS LOGIC;7SH08,AND GATE,SOP,5P,110MIL,S | |
| DIC2 | 1105-001038 | IC-DRAM;48C512,512KX8BIT,SOJ,28P,400MI | |
| DIC3 | 0801-002166 | IC-CMOS LOGIC;7SHU04,INVERTER GATE,SOP,5P,6. | |
| DIC6 | AH13-10030L | IC-ASIC;-,TC6804AF,QFP,80P,COPY RPOTEC | |
| DIC7 | 0801-000885 | IC-CMOS LOGIC;7S04,INVERTER,SOP,5P,150MIL,SI | |
| DIC8 | 1201-000211 | IC-OP AMP;272A,SOP,8P,150MIL,DUAL,7.5V/M | |
| DIC9 | 0801-002115 | IC-CMOS LOGIC;7SH04F,INVERTER,SOP,5P,49.2MIL | |
| DL1 | 2007-000029 | R-CHIP;0OHM,5%,1/10W,DA,TP,2012 | |
| DL2 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| DL3 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| DL4 | 2703-000401 | INDUCTOR-SMD;1UH,10%,3.2X2.5X2.2MM | |
| DL5 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| DL6 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| DL7 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| DL8 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| DL9 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| DQ1 | 0501-000199 | TR-SMALL SIGNAL;2SC2714-Y,NPN,100MW,SOT-23,TP, | |
| DR1 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| DR10 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| DR100 | 2007-000402 | R-CHIP;150OHM,5%,1/16W,DA,TP,1608 | |
| DR101 | 2007-000729 | R-CHIP;300OHM,5%,1/16W,DA,TP,1608 | |
| DR102 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| DR103 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| DR104 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| DR105 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| DR11 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| DR12 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| DR2 | 2007-000077 | R-CHIP;470OHM,5%,1/16W,DA,TP,1608 | |
| DR24 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| DR25 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| DR27 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| DR28 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| DR29 | 2007-000072 | R-CHIP;47OHM,5%,1/16W,DA,TP,1608 | |
| DR3 | 2007-000092 | R-CHIP;15KOHM,5%,1/16W,DA,TP,1608 | |
| DR30 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| DR35 | 2007-000120 | R-CHIP;680OHM,5%,1/16W,DA,TP,1608 | |
| DR36 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| DR37 | 2007-000127 | R-CHIP;9.1KOHM,5%,1/16W,DA,TP,1608 | |
| DR39 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| DR4 | 2007-000077 | R-CHIP;470OHM,5%,1/16W,DA,TP,1608 | |
| DR40 | 2007-000129 | R-CHIP;27KOHM,5%,1/16W,DA,TP,1608 | |
| DR41 | 2007-000134 | R-CHIP;33KOHM,5%,1/16W,DA,TP,1608 | |
| DR42 | 2007-000079 | R-CHIP;1.8KOHM,5%,1/16W,DA,TP,1608 | |
| DR43 | 2007-000109 | R-CHIP;1MOHM,5%,1/16W,DA,TP,1608 | |
| DR45 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| DR46 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| DR47 | 2007-000109 | R-CHIP;1MOHM,5%,1/16W,DA,TP,1608 | |
| DR48 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| DR49 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| DR5 | 2007-000127 | R-CHIP;9.1KOHM,5%,1/16W,DA,TP,1608 | |
| DR50 | 2007-000120 | R-CHIP;680OHM,5%,1/16W,DA,TP,1608 | |
| DR6 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| DR7 | 2007-000082 | R-CHIP;3.3KOHM,5%,1/16W,DA,TP,1608 | |
| DR8 | 2007-000081 | R-CHIP;2.7KOHM,5%,1/16W,DA,TP,1608 | |
| DR9 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| DY1 | 2801-003255 | CRYSTAL-UNIT;33MHZ,20PPM,28-AAA,16PF,30OHM, | |
| DY2 | 2801-003348 | CRYSTAL-UNIT;27MHZ,20PPM,28-AAM,20PF,20OHM, | |
| KC1 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | DVD878KV ONLY |
| KC10 | 2401-001912 | C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM | DVD878KV ONLY |
| KC11 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | DVD878KV ONLY |
| KC12 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | DVD878KV ONLY |
| KC15 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | DVD878KV ONLY |
| KC16 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | DVD878KV ONLY |
| KC19 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | DVD878KV ONLY |
| KC2 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | DVD878KV ONLY |
| KC20 | 2203-000888 | C-CERAMIC,CHIP;4.7NF,10%,50V,X7R,TP,1608,- | DVD878KV ONLY |
| KC21 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | DVD878KV ONLY |
| KC22 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | DVD878KV ONLY |
| KC23 | 2401-001954 | C-AL;4.7UF,20%,50V,GP,BK,5X11MM,5 | DVD878KV ONLY |
| KC24 | 2203-000054 | C-CERAMIC,CHIP;15NF,0.1,50V,X7R,1608,-,TP | DVD878KV ONLY |
| KC25 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| KC26 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| KC27 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| KC28 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| KC29 | 2401-001912 | C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM | |
| KC3 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | DVD878KV ONLY |
| KC30 | 2401-001912 | C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM | |
| KC31 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| KC32 | 2203-001211 | C-CERAMIC,CHIP;8.2NF,10%,50V,X7R,TP,1608,- | |
| KC33 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| KC34 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| KC35 | 2401-002180 | C-AL;2.2UF,20%,50V,GP,TP,5X11,5MM | |
| KC39 | 2203-000440 | C-CERAMIC,CHIP;1NF,10%,50V,X7R,TP,1608,- | |
| KC4 | 2203-001628 | C-CERAMIC,CHIP;30PF,5%,50V,CH,TP,1608,1.6MM | DVD878KV ONLY |
| KC40 | 2203-000140 | C-CERAMIC,CHIP;1.5NF,10%,50V,X7R,1608,-,TP | |
| KC41 | 2203-001211 | C-CERAMIC,CHIP;8.2NF,10%,50V,X7R,TP,1608,- | |
| KC42 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| KC43 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| KC44 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| KC45 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| KC46 | 2401-002180 | C-AL;2.2UF,20%,50V,GP,TP,5X11,5MM | |
| KC5 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | DVD878KV ONLY |
| KC50 | 2203-000440 | C-CERAMIC,CHIP;1NF,10%,50V,X7R,TP,1608,- | |
| KC51 | 2203-000140 | C-CERAMIC,CHIP;1.5NF,10%,50V,X7R,1608,-,TP | |
| KC52 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| KC53 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| KC54 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | DVD878KV ONLY |
| KC55 | 2203-001632 | C-CERAMIC,CHIP;330PF,5%,50V,CH,TP,1608,1.6MM | DVD878KV ONLY |
| KC56 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | DVD878KV ONLY |
| KC57 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | DVD878KV ONLY |
| KC58 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | DVD878KV ONLY |
| KC59 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | DVD878KV ONLY |
| KC6 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | DVD878KV ONLY |
| KC61 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | DVD878KV ONLY |
| KC7 | 2203-001034 | C-CERAMIC,CHIP;5.6NF,10%,50V,X7R,1608,-,TP | DVD878KV ONLY |
| KC8 | 2203-000125 | C-CERAMIC,CHIP;1.2NF,10%,50V,X7R,TP,1608,- | DVD878KV ONLY |
| KC9 | 2203-001587 | C-CERAMIC,CHIP;18NF,10%,50V,X7R,TP,1608,1.6MM | DVD878KV ONLY |
| KCN1 | 3711-000736 | CONNECTOR-HEADER;BOX,18P,1R,2.5MM,BLACK,BRASS | DVD878KV ONLY |
| KD1 | 0401-000008 | DIODE-SWITCHING;DAN217,80V,100MA,200MW,4NS,SOT | DVD878KV ONLY |
| KD10 | 0401-000008 | DIODE-SWITCHING;DAN217,80V,100MA,200MW,4NS,SOT | |
| KD2 | B4106-0230 | DIODE-ZENER,CHIP;UDZ3.9B-TE17 3.89/4.16V 5MA T | DVD878KV ONLY |
| KD3 | 0401-000008 | DIODE-SWITCHING;DAN217,80V,100MA,200MW,4NS,SOT | DVD878KV ONLY |
| KD4 | 0401-000008 | DIODE-SWITCHING;DAN217,80V,100MA,200MW,4NS,SOT | DVD878KV ONLY |
| KD5 | 0401-000008 | DIODE-SWITCHING;DAN217,80V,100MA,200MW,4NS,SOT | DVD878KV ONLY |
| KD7 | 0401-000008 | DIODE-SWITCHING;DAN217,80V,100MA,200MW,4NS,SOT | DVD878KV ONLY |
| KD9 | B4106-0230 | DIODE-ZENER,CHIP;UDZ3.9B-TE17 3.89/4.16V 5MA T | DVD878KV ONLY |
| KIC1 | 1204-001120 | IC-SOUND PROCESSOR;TC9409F,QFP,44P,14MIL,PLASTIC, | DVD878KV ONLY |
| KIC2 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | DVD878KV ONLY |
| KIC3 | 1002-000169 | IC-D/A CONVERTER;PCM1710U,16BIT,SOP,28P,-,-,ST, | |
| KIC4 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| KIC5 | AH14-10004T | IC-ANALOG M/PLEXER;MC14053BD,SOP,TAPE 16P ANALOG | |
| KIC6 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | DVD878KV ONLY |
| KL1 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | DVD878KV ONLY |
| KL2 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | DVD878KV ONLY |
| KL3 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| KL4 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| KL5 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| KL6 | 2007-000029 | R-CHIP;0OHM,5%,1/10W,DA,TP,2012 | |
| KQ1 | 0504-000156 | TR-DIGITAL;KSR2103,PNP,200MW,22K-22K,SOT- | DVD878KV ONLY |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| KQ2 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | DVD878KV ONLY |
| KR1 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR11 | 2007-000098 | R-CHIP;56KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR12 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR13 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR15 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR16 | 2007-000097 | R-CHIP;47KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR17 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR18 | 2007-000133 | R-CHIP;330KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR2 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR21 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR22 | 2007-000094 | R-CHIP;22KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR27 | 2007-000086 | R-CHIP;5.6KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR29 | 2007-000081 | R-CHIP;2.7KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR3 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR30 | 2007-000086 | R-CHIP;5.6KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR31A | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| KR32 | 2007-000086 | R-CHIP;5.6KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR33 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR34 | 2007-000134 | R-CHIP;33KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR35 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| KR38 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| KR39 | 2007-001240 | R-CHIP;910OHM,5%,1/16W,DA,TP,1608 | |
| KR4 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR40 | 2007-001240 | R-CHIP;910OHM,5%,1/16W,DA,TP,1608 | |
| KR41 | 2007-001240 | R-CHIP;910OHM,5%,1/16W,DA,TP,1608 | |
| KR42 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| KR44 | 2007-000124 | R-CHIP;2.2KOHM,5%,1/16W,DA,TP,1608 | |
| KR45 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| KR47 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| KR48 | 2007-001240 | R-CHIP;910OHM,5%,1/16W,DA,TP,1608 | |
| KR49 | 2007-001240 | R-CHIP;910OHM,5%,1/16W,DA,TP,1608 | |
| KR5 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR50 | 2007-001240 | R-CHIP;910OHM,5%,1/16W,DA,TP,1608 | |
| KR51 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| KR53 | 2007-000124 | R-CHIP;2.2KOHM,5%,1/16W,DA,TP,1608 | |
| KR59 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR6 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR60 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR61 | 2007-001196 | R-CHIP;820KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR62 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR63 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR64 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR65 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR66 | 2007-000100 | R-CHIP;68KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR67 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR68 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR69 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR7 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR73 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR75 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| KR76 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | DVD858V ONLY |
| KR77 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | DVD858V ONLY |
| KR78 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | DVD858V ONLY |
| KR79 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| KR8 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| KR80 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | DVD858V ONLY |
| KR82 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| KR9 | 2007-000097 | R-CHIP;47KOHM,5%,1/16W,DA,TP,1608 | DVD878KV ONLY |
| L101 | 3301-000325 | CORE-FERRITE BEAD;AB,3.2X2.5X1.3MM,-,- | |
| L4 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| L6 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| LC1 | 2203-001554 | C-CERAMIC,CHIP;1.8NF,10%,50V,X7R,TP,1608,- | |
| LC11 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| LC12 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| LC2 | 2203-001703 | C-CERAMIC,CHIP;560PF,10%,50V,X7R,TP,1608,- | |
| LC5 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| LC6 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| LC7 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| LC8 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| LC9 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| LIC1 | 0801-002146 | IC-CMOS LOGIC;7S86,X-OR GATE,SOP,5P,63MIL,SI | |
| LIC2 | 0801-002146 | IC-CMOS LOGIC;7S86,X-OR GATE,SOP,5P,63MIL,SI | |
| LIC3 | 1202-000143 | IC-VOLTAGE COMP.;75S393,SOP,5P,-,SINGLE,0V,-,PL | |
| LIC4 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| LIC6 | 0801-002145 | IC-CMOS LOGIC;7W74F,D FLIP-FLOP,SOP,8P,110MI | |
| LIC7 | 0801-000795 | IC-CMOS LOGIC;7S32,OR GATE,SOP,5P,64MIL,-,ST | DVD878KV ONLY |
| | 0801-002143 | IC-CMOS LOGIC;7S32,OR GATE,SOP,5P,49.3MIL,SI | DVD858V ONLY |
| LIC8 | 0801-002144 | IC-CMOS LOGIC;7W04F,INVERTER,SOP,8P,122MIL,T | |
| LR1 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| LR10 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| LR11 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| LR12 | 2007-000098 | R-CHIP;56KOHM,5%,1/16W,DA,TP,1608 | |
| LR14 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| LR16 | 2007-000965 | R-CHIP;5.1KOHM,5%,1/16W,DA,TP,1608 | |
| LR17 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| LR2 | 2007-000098 | R-CHIP;56KOHM,5%,1/16W,DA,TP,1608 | |
| LR3 | 2007-000094 | R-CHIP;22KOHM,5%,1/16W,DA,TP,1608 | |
| LR4 | 2007-000098 | R-CHIP;56KOHM,5%,1/16W,DA,TP,1608 | |
| LR5 | 2007-000082 | R-CHIP;3.3KOHM,5%,1/16W,DA,TP,1608 | |
| LR6 | 2007-000082 | R-CHIP;3.3KOHM,5%,1/16W,DA,TP,1608 | |
| LR7 | 2007-000123 | R-CHIP;1.5KOHM,5%,1/16W,DA,TP,1608 | |
| LR8 | 2007-000259 | R-CHIP;1.6KOHM,5%,1/16W,DA,TP,1608 | |
| LR9 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| MC1 | 2203-001588 | C-CERAMIC,CHIP;18PF,5%,50V,CH,TP,1608,1.6MM | |
| MC10 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| MC11 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| MC12 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| MC13 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| MC14 | 2203-001559 | C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,1608,1.6MM | |
| MC15 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| MC16 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| MC18 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| MC19 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| MC2 | 2203-001588 | C-CERAMIC,CHIP;18PF,5%,50V,CH,TP,1608,1.6MM | |
| MC3 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| MC4 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| MC5 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| MC6 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| MC7 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| MC9 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| MIC1 | 0903-001031 | IC-MICROCONTROLLER;93CS41,8BIT,FLAT,100P,-,20MHZ, | |
| MIC2 | | IC-EPROM | OTP |
| MIC3 | 1106-000401 | IC-SRAM;681000,128KX8BIT,SOP,32P,525MI | |
| MIC4 | 0801-002207 | IC-CMOS LOGIC;74AC573,LATCH,SOP,20P,300MIL,O | |
| MIC5 | 1103-001048 | IC-EEPROM;24C02,256X8BIT,SOP,8P,150MIL,3 | |
| MIC6 | 0801-000379 | IC-CMOS LOGIC;74HC00,NAND GATE,SOP,14P,150MI | |
| MIC8 | 0801-000885 | IC-CMOS LOGIC;7S04,INVERTER,SOP,5P,150MIL,SI | |
| MJP1 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| MJP15 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| MJP20 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| MJP21 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| MJP24 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| MJP25 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| MPL1 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| MPL2 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| MPL3 | 2007-000029 | R-CHIP;0OHM,5%,1/10W,DA,TP,2012 | |
| MPL4 | 2007-000029 | R-CHIP;0OHM,5%,1/10W,DA,TP,2012 | |
| MPL5 | 2007-000029 | R-CHIP;0OHM,5%,1/10W,DA,TP,2012 | |
| MR1 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| MR10 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| MR11 | 2007-000109 | R-CHIP;1MOHM,5%,1/16W,DA,TP,1608 | |
| MR12 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| MR13 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| MR15 | 2007-000124 | R-CHIP;2.2KOHM,5%,1/16W,DA,TP,1608 | |
| MR18 | 2007-000076 | R-CHIP;330OHM,5%,1/16W,DA,TP,1608 | |
| MR19 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| MR2 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| MR20 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| MR21 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR22 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR23 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR24 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR25 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR26 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR27 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR28 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR3 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| MR31 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR32 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR33 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR34 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR35 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR36 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR37 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR38 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR39 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR4 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| MR40 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR41 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| MR42 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR43 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| MR44 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| MR45 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| MR46 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| MR47 | 2007-000122 | R-CHIP;1.2KOHM,5%,1/16W,DA,TP,1608 | |
| MR5 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| MR6 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| MR7 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| MR8 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| MR9 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| MS1 | 3704-000472 | SOCKET-IC;32P,DIP,SN,2.54MM | |
| MS2 | 3704-000272 | SOCKET-IC;40P,DIP,SN,2.54MM | DVD858V ONLY |
| MY1 | 2801-000199 | CRYSTAL-UNIT;20MHZ,50PPM,28-AAA,16PF,50OHM, | |
| OPT-JA | 3707-001005 | CONNECTOR-OPTICAL;PLUG,SM,-,4.4/2.0MM | |
| PC1 | 2401-001895 | C-AL;100UF,20%,16V,GP,BK,6.3X11MM,2 | |
| PC10 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| PC2 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| PC3 | 2401-001895 | C-AL;100UF,20%,16V,GP,BK,6.3X11MM,2 | |
| PC4 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| PC5 | 2401-001895 | C-AL;100UF,20%,16V,GP,BK,6.3X11MM,2 | |
| PC6 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| PC7 | 2401-001895 | C-AL;100UF,20%,16V,GP,BK,6.3X11MM,2 | |
| PC8 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| PC9 | 2401-001895 | C-AL;100UF,20%,16V,GP,BK,6.3X11MM,2 | |
| PCN1 | 3711-000736 | CONNECTOR-HEADER;BOX,18P,1R,2.5MM,BLACK,BRASS | |
| Q1 | 0501-002082 | TR-SMALL SIGNAL;HN1C01F,NPN,300MV,SC-74,TP,120 | |
| Q101 | 0501-000314 | TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,TP,90- | |
| Q102 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| Q103 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| Q104 | 0501-000314 | TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,TP,90- | |
| Q2 | 0504-000126 | TR-DIGITAL;KSR1101,NPN,200MW,4.7K-4.7K,SO | |
| R1 | 2007-000091 | R-CHIP;12KOHM,5%,1/16W,DA,TP,1608 | |
| R101 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| R102 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| R103 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| R104 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| R105 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| R14 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| R18 | 2007-000458 | R-CHIP;18KOHM,5%,1/16W,DA,TP,1608 | |
| R22 | 2007-000096 | R-CHIP;30KOHM,5%,1/16W,DA,TP,1608 | |
| R24 | 2007-000096 | R-CHIP;30KOHM,5%,1/16W,DA,TP,1608 | |
| R27 | 2007-000458 | R-CHIP;18KOHM,5%,1/16W,DA,TP,1608 | |
| R29 | 2007-000092 | R-CHIP;15KOHM,5%,1/16W,DA,TP,1608 | |
| R31 | 2007-000096 | R-CHIP;30KOHM,5%,1/16W,DA,TP,1608 | |
| R33 | 2007-000096 | R-CHIP;30KOHM,5%,1/16W,DA,TP,1608 | |
| R38 | 2007-000458 | R-CHIP;18KOHM,5%,1/16W,DA,TP,1608 | |
| R40 | 2007-000092 | R-CHIP;15KOHM,5%,1/16W,DA,TP,1608 | |
| R41 | 2007-000096 | R-CHIP;30KOHM,5%,1/16W,DA,TP,1608 | |
| R42 | 2007-000096 | R-CHIP;30KOHM,5%,1/16W,DA,TP,1608 | |
| R43 | 2007-000081 | R-CHIP;2.7KOHM,5%,1/16W,DA,TP,1608 | |
| R44 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| R45 | 2007-000092 | R-CHIP;15KOHM,5%,1/16W,DA,TP,1608 | |
| R46 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| R48 | 2007-000122 | R-CHIP;1.2KOHM,5%,1/16W,DA,TP,1608 | |
| R49 | 2007-000708 | R-CHIP;3.9KOHM,1%,1/16W,DA,TP,1608 | |
| R50 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| R51 | 2007-000088 | R-CHIP;7.5KOHM,5%,1/16W,DA,TP,1608 | |
| R52 | 2007-000094 | R-CHIP;22KOHM,5%,1/16W,DA,TP,1608 | |
| R54 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| R55 | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | |
| R57 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| R60 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| R61 | 2007-000092 | R-CHIP;15KOHM,5%,1/16W,DA,TP,1608 | |
| R7 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| RC1 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| RC10 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC11 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC12 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC12A | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC13 | 2203-001697 | C-CERAMIC,CHIP;82PF,5%,50V,CH,TP,1608,1.6MM | |
| RC13A | 2401-001022 | C-AL;3.3UF,20%,50V,GP,-,5X11,2MM | |
| RC14 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC15 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC16 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC17 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| RC18 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC19 | 2203-000308 | C-CERAMIC,CHIP;120PF,5%,50V,NPO,TP,1608,- | |
| RC2 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC20 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC21 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC21A | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| RC22 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC22A | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC23 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC24 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC24A | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| RC25 | 2203-001585 | C-CERAMIC,CHIP;180PF,5%,50V,CH,TP,1608,1.6MM | |
| RC26 | 2401-000419 | C-AL;10UF,20%,16V,GP,-,4X7,5 | |
| RC27 | 2203-001559 | C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,1608,1.6MM | |
| RC28 | 2203-001559 | C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,1608,1.6MM | |
| RC29 | 2203-000440 | C-CERAMIC,CHIP;1NF,10%,50V,X7R,TP,1608,- | |
| RC2A | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC3 | 2401-000907 | C-AL;22UF,20%,16V,GP,-,5X11,2MM | |
| RC30A | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC30C | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC31 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| RC32 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC33 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| RC34 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| RC35 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC36 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC37 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC38 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC39 | 2203-000440 | C-CERAMIC,CHIP;1NF,10%,50V,X7R,TP,1608,- | |
| RC4 | 2203-001609 | C-CERAMIC,CHIP;22NF,10%,16V,X7R,TP,1608,1.6MM | |
| RC40 | 2203-000440 | C-CERAMIC,CHIP;1NF,10%,50V,X7R,TP,1608,- | |
| RC41 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC50 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC50A | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC51 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC6 | 2203-001609 | C-CERAMIC,CHIP;22NF,10%,16V,X7R,TP,1608,1.6MM | |
| RC7 | 2401-001912 | C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM | |
| RC8 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| RC8A | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| RC9 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RC9A | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| RCA1 | 3722-001136 | JACK-RCA;6P,3.2MM,AU,R,G,B,- | |
| RCA3 | 3722-001145 | JACK-RCA;6P/2C,3.2MM,AU,G/W/R,NO | |
| RCA5 | 3722-001134 | JACK-RCA;1P,3.2MM,AU,BLK,- | |
| RCA8S | 3722-001137 | JACK-RCA;2P,3.2MM,AU,BLACK,- | |
| RIC1 | AH13-10030H | IC-ASIC;-,TA1236F,QFP,64P,RF IC | |
| RIC2 | AH13-10030J | IC-ASIC;-,TA1253FN,SSOP,24P,DPD IC | |
| RIC3 | 1201-001054 | IC-OP AMP;650,SOP,8P,-,SINGLE,-,PLASTIC, | |
| RL1 | 2703-000122 | INDUCTOR-SMD;10UH,10%,2.5X3.2X2MM | |
| RL10 | 2007-000029 | R-CHIP;0OHM,5%,1/10W,DA,TP,2012 | |
| RL10A | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| RL2 | 2007-000029 | R-CHIP;0OHM,5%,1/10W,DA,TP,2012 | |
| RL3 | 2007-000029 | R-CHIP;0OHM,5%,1/10W,DA,TP,2012 | |
| RL4 | 2007-000029 | R-CHIP;0OHM,5%,1/10W,DA,TP,2012 | |
| RL7 | 2007-000029 | R-CHIP;0OHM,5%,1/10W,DA,TP,2012 | |
| RL8 | 2007-000029 | R-CHIP;0OHM,5%,1/10W,DA,TP,2012 | |
| RL9 | 2007-000029 | R-CHIP;0OHM,5%,1/10W,DA,TP,2012 | |
| RQ1 | 0501-002034 | TR-SMALL SIGNAL;SS9012,PNP,-40V,-20V,-500MA,62 | |
| RR10 | 2007-000086 | R-CHIP;5.6KOHM,5%,1/16W,DA,TP,1608 | |
| RR11 | 2007-001026 | R-CHIP;560KOHM,5%,1/16W,DA,TP,1608 | |
| RR12A | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| RR13A | 2007-000124 | R-CHIP;2.2KOHM,5%,1/16W,DA,TP,1608 | |
| RR14 | 2007-000122 | R-CHIP;1.2KOHM,5%,1/16W,DA,TP,1608 | |
| RR18 | 2007-000079 | R-CHIP;1.8KOHM,5%,1/16W,DA,TP,1608 | |
| RR18A | 2007-000079 | R-CHIP;1.8KOHM,5%,1/16W,DA,TP,1608 | |
| RR18B | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| RR19 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| RR20 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| RR21 | 2007-000075 | R-CHIP;220OHM,5%,1/16W,DA,TP,1608 | |
| RR22 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| RR23 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| RR24 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| RR25 | 2007-000082 | R-CHIP;3.3KOHM,5%,1/16W,DA,TP,1608 | |
| RR26 | 2007-000094 | R-CHIP;22KOHM,5%,1/16W,DA,TP,1608 | |
| RR26A | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| RR28 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| RR28A | 2007-000082 | R-CHIP;3.3KOHM,5%,1/16W,DA,TP,1608 | |
| RR29 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| RR3 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| RR30 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| RR31 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| RR31A | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| RR33 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| RR34 | 2007-000093 | R-CHIP;20KOHM,5%,1/16W,DA,TP,1608 | |
| RR35 | 2007-000130 | R-CHIP;39KOHM,5%,1/16W,DA,TP,1608 | |
| RR36 | 2007-000616 | R-CHIP;24KOHM,5%,1/16W,DA,TP,1608 | |
| RR36A | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| RR37 | 2007-000100 | R-CHIP;68KOHM,5%,1/16W,DA,TP,1608 | |
| RR38 | 2007-000097 | R-CHIP;47KOHM,5%,1/16W,DA,TP,1608 | |
| RR38A | 2007-000102 | R-CHIP;100KOHM,5%,1/16W,DA,TP,1608 | |
| RR38B | 2007-000129 | R-CHIP;27KOHM,5%,1/16W,DA,TP,1608 | |
| RR38C | 2007-001010 | R-CHIP;51KOHM,5%,1/16W,DA,TP,1608 | |
| RR40 | 2007-001179 | R-CHIP;8.2KOHM,5%,1/16W,DA,TP,1608 | |
| RR40A | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| RR41A | 2007-000101 | R-CHIP;82KOHM,5%,1/16W,DA,TP,1608 | |
| RR43 | 2007-000092 | R-CHIP;15KOHM,5%,1/16W,DA,TP,1608 | |
| RR45 | 2007-000086 | R-CHIP;5.6KOHM,5%,1/16W,DA,TP,1608 | |
| RR46 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| RR5 | 2007-000119 | R-CHIP;560OHM,5%,1/16W,DA,TP,1608 | |
| RR50 | 2007-000086 | R-CHIP;5.6KOHM,5%,1/16W,DA,TP,1608 | |
| RR51 | 2007-000086 | R-CHIP;5.6KOHM,5%,1/16W,DA,TP,1608 | |
| RR53 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| RR6 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| RR7 | 2007-000361 | R-CHIP;12OHM,5%,1/10W,DA,TP,2012 | |
| SC1 | 2203-001703 | C-CERAMIC,CHIP;560PF,10%,50V,X7R,TP,1608,- | |
| SC10 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC11 | 2203-001656 | C-CERAMIC,CHIP;470PF,5%,50V,CH,TP,1608,1.6MM | |
| SC15 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC19 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC2 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| SC20 | 2203-000440 | C-CERAMIC,CHIP;1NF,10%,50V,X7R,TP,1608,- | |
| SC21 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC22 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC23 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC24 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC25 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC25A | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC26 | 2203-001634 | C-CERAMIC,CHIP;33NF,10%,50V,X7R,TP,1608,1.6MM | |
| SC26A | 2203-000888 | C-CERAMIC,CHIP;4.7NF,10%,50V,X7R,TP,1608,- | |
| SC27 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| SC28 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC28A | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC29 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC3 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC31 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC32 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC33 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC34 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC35 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC36 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| SC37 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| SC39 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC4 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC40 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC41 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC42 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC43 | 2203-001588 | C-CERAMIC,CHIP;18PF,5%,50V,CH,TP,1608,1.6MM | |
| SC43A | 2203-001609 | C-CERAMIC,CHIP;22NF,10%,16V,X7R,TP,1608,1.6MM | |
| SC44 | 2203-001588 | C-CERAMIC,CHIP;18PF,5%,50V,CH,TP,1608,1.6MM | |
| SC45 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC46 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC47 | 2203-000054 | C-CERAMIC,CHIP;15NF,0.1,50V,X7R,1608,-,TP | |
| SC48 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| SC49 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC5 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC50 | 2203-000726 | C-CERAMIC,CHIP;3.9NF,10%,50V,X7R,TP,1608,- | |
| SC50A | 2203-001559 | C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,1608,1.6MM | |
| SC51 | 2203-000726 | C-CERAMIC,CHIP;3.9NF,10%,50V,X7R,TP,1608,- | |
| SC52 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| SC53 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC54 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC55 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC55A | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC56 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC57 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC58 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC59 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| SC5A | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC5B | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC5C | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC6 | 2203-001703 | C-CERAMIC,CHIP;560PF,10%,50V,X7R,TP,1608,- | |
| SC60 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC62 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC63 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC65 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| SC67 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC69 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| SC7 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC70 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC71 | 2203-001559 | C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,1608,1.6MM | |
| SC72 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| SC73 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SC8 | 2203-001634 | C-CERAMIC,CHIP;33NF,10%,50V,X7R,TP,1608,1.6MM | |
| SC9 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| SIC1 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| SIC2 | BG13-10030A | IC-ASIC;SCR-730,SEC,SOP,24P,HALL CONTRBG13 | |
| SIC4 | 1003-001083 | IC-MOTOR DRIVER;BA5924FP,SOP,28P,767MIL,SINGLE | |
| SIC5 | 1003-001044 | IC-MOTOR DRIVER;BA6840BFP,SOP,28P,292MIL,SINGL | |
| SIC6 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| SIC6A | 1202-000143 | IC-VOLTAGE COMP.;75S393,SOP,5P,-,SINGLE,0V,-,PL | |
| SIC7 | AH13-10030G | IC-ASIC;-,TC9420F,QFP,100P,DIGITAL SER | |
| SIC8 | 1201-000163 | IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M | |
| SIC9 | 0803-001040 | IC-TTL;74LS14,SCHIMITT INVERTER,SOP,1 | |
| SQ1 | 0505-000191 | FET-SILICON;2SK184Y,N,-,-,-,200MW,TO-92 | |
| SQ11 | 0504-000128 | TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23, | |
| SQ12 | 0504-000128 | TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23, | |
| SQ13 | 0504-000128 | TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23, | |
| SQ14 | 0504-000128 | TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23, | |
| SQ2 | 0504-000128 | TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23, | |
| SQ2A | 0504-000128 | TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23, | |
| SQ3 | 0504-000156 | TR-DIGITAL;KSR2103,PNP,200MW,22K-22K,SOT- | |
| SR1 | 2007-000077 | R-CHIP;470OHM,5%,1/16W,DA,TP,1608 | |
| SR10 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| SR11 | 2007-000091 | R-CHIP;12KOHM,5%,1/16W,DA,TP,1608 | |
| SR12 | 2007-000087 | R-CHIP;6.8KOHM,5%,1/16W,DA,TP,1608 | |
| SR13 | 2007-000079 | R-CHIP;1.8KOHM,5%,1/16W,DA,TP,1608 | |
| SR13A | 2007-000079 | R-CHIP;1.8KOHM,5%,1/16W,DA,TP,1608 | |
| SR13B | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| SR14 | 2007-000097 | R-CHIP;47KOHM,5%,1/16W,DA,TP,1608 | |
| SR15 | 2007-000079 | R-CHIP;1.8KOHM,5%,1/16W,DA,TP,1608 | |
| SR16 | 2007-000091 | R-CHIP;12KOHM,5%,1/16W,DA,TP,1608 | |
| SR17 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| SR18 | 2007-000091 | R-CHIP;12KOHM,5%,1/16W,DA,TP,1608 | |
| SR19 | 2007-000091 | R-CHIP;12KOHM,5%,1/16W,DA,TP,1608 | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| SR2 | 2007-000077 | R-CHIP;470OHM,5%,1/16W,DA,TP,1608 | |
| SR20 | 2007-000106 | R-CHIP;220KOHM,5%,1/16W,DA,TP,1608 | |
| SR21 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| SR22 | 2007-000107 | R-CHIP;470KOHM,5%,1/16W,DA,TP,1608 | |
| SR23 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| SR24 | 2007-000092 | R-CHIP;15KOHM,5%,1/16W,DA,TP,1608 | |
| SR24A | 2007-000123 | R-CHIP;1.5KOHM,5%,1/16W,DA,TP,1608 | |
| SR25 | 2007-000092 | R-CHIP;15KOHM,5%,1/16W,DA,TP,1608 | |
| SR25A | 2007-000123 | R-CHIP;1.5KOHM,5%,1/16W,DA,TP,1608 | |
| SR26 | 2007-000124 | R-CHIP;2.2KOHM,5%,1/16W,DA,TP,1608 | |
| SR27 | 2007-000091 | R-CHIP;12KOHM,5%,1/16W,DA,TP,1608 | |
| SR27A | 2007-000133 | R-CHIP;330KOHM,5%,1/16W,DA,TP,1608 | |
| SR28A | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| SR28B | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| SR28C | 2007-001179 | R-CHIP;8.2KOHM,5%,1/16W,DA,TP,1608 | |
| SR29 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| SR29A | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| SR3 | 2007-000077 | R-CHIP;470OHM,5%,1/16W,DA,TP,1608 | |
| SR30 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| SR30A | 2007-000086 | R-CHIP;5.6KOHM,5%,1/16W,DA,TP,1608 | |
| SR30B | 2007-000127 | R-CHIP;9.1KOHM,5%,1/16W,DA,TP,1608 | |
| SR31 | 2007-000101 | R-CHIP;82KOHM,5%,1/16W,DA,TP,1608 | |
| SR32 | 2007-000101 | R-CHIP;82KOHM,5%,1/16W,DA,TP,1608 | |
| SR33 | 2007-000087 | R-CHIP;6.8KOHM,5%,1/16W,DA,TP,1608 | |
| SR34 | 2007-000450 | R-CHIP;180OHM,5%,1/16W,DA,TP,1608 | |
| SR34A | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| SR34B | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| SR35 | 2007-000086 | R-CHIP;5.6KOHM,5%,1/16W,DA,TP,1608 | |
| SR36 | 2007-000450 | R-CHIP;180OHM,5%,1/16W,DA,TP,1608 | |
| SR36A | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| SR36B | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| SR37 | 2007-007157 | R-CHIP;1OHM,5%,1/4W,DA,TP,3216 | |
| SR37A | 2007-007157 | R-CHIP;1OHM,5%,1/4W,DA,TP,3216 | |
| SR38 | 2007-000458 | R-CHIP;18KOHM,5%,1/16W,DA,TP,1608 | |
| SR39 | 2007-000124 | R-CHIP;2.2KOHM,5%,1/16W,DA,TP,1608 | |
| SR4 | 2007-000077 | R-CHIP;470OHM,5%,1/16W,DA,TP,1608 | |
| SR40 | 2007-000100 | R-CHIP;68KOHM,5%,1/16W,DA,TP,1608 | |
| SR41 | 2007-000091 | R-CHIP;12KOHM,5%,1/16W,DA,TP,1608 | |
| SR42 | 2007-000086 | R-CHIP;5.6KOHM,5%,1/16W,DA,TP,1608 | |
| SR43 | 2007-000458 | R-CHIP;18KOHM,5%,1/16W,DA,TP,1608 | |
| SR44 | 2007-000099 | R-CHIP;62KOHM,5%,1/16W,DA,TP,1608 | |
| SR44A | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| SR45 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| SR49 | 2007-000124 | R-CHIP;2.2KOHM,5%,1/16W,DA,TP,1608 | |
| SR5 | 2007-000129 | R-CHIP;27KOHM,5%,1/16W,DA,TP,1608 | |
| SR50 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| SR51 | 2007-000092 | R-CHIP;15KOHM,5%,1/16W,DA,TP,1608 | |
| SR52 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| SR53 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| SR54 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| SR55 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| SR56 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| SR56A | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| SR57 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| SR58 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| SR59 | 2007-000124 | R-CHIP;2.2KOHM,5%,1/16W,DA,TP,1608 | |
| SR6 | 2007-000081 | R-CHIP;2.7KOHM,5%,1/16W,DA,TP,1608 | |
| SR60 | 2007-000124 | R-CHIP;2.2KOHM,5%,1/16W,DA,TP,1608 | |
| SR61A | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| SR61B | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| SR63 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| SR63A | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| SR68 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| SR7 | 2007-000081 | R-CHIP;2.7KOHM,5%,1/16W,DA,TP,1608 | |
| SR70 | 2007-000134 | R-CHIP;33KOHM,5%,1/16W,DA,TP,1608 | |
| SR71 | 2007-000092 | R-CHIP;15KOHM,5%,1/16W,DA,TP,1608 | |
| SR73 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| SR74 | 2007-000065 | R-CHIP;2.2MOHM,5%,1/16W,DA,TP,1608 | |
| SR77 | 2007-000133 | R-CHIP;330KOHM,5%,1/16W,DA,TP,1608 | |
| SR78 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| SR79 | 2007-000097 | R-CHIP;47KOHM,5%,1/16W,DA,TP,1608 | |
| SR8 | 2007-000081 | R-CHIP;2.7KOHM,5%,1/16W,DA,TP,1608 | |
| SR80 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| SR81 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| SR82 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| SR83 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| SR84 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| SR85 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| SR89 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| SR9 | 2007-000129 | R-CHIP;27KOHM,5%,1/16W,DA,TP,1608 | |
| SR90 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| SR91 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| SR92 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| SR93 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| SR94 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| SR95 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| SR96 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| SR97 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| SUPER | 3722-001133 | JACK-DIN;4P,-,NI,BLK,- | |
| SX1 | 2801-003256 | CRYSTAL-UNIT;16.9344MHZ,20PPM,28-AAA,18PF,4 | |
| VC1 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC10 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC100 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC103 | 2401-000778 | C-AL;220UF,20%,10V,GP,-,6.3X11,2.5M | |
| VC104 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| VC105 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC107 | 2203-001609 | C-CERAMIC,CHIP;22NF,10%,16V,X7R,TP,1608,1.6MM | |
| VC108 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC109 | 2203-000440 | C-CERAMIC,CHIP;1NF,10%,50V,X7R,TP,1608,- | |
| VC11 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC110 | 2401-001912 | C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM | |
| VC111 | 2203-000531 | C-CERAMIC,CHIP;2.7NF,10%,50V,X7R,TP,1608,- | |
| VC112 | 2401-001912 | C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM | |
| VC113 | 2203-001559 | C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,1608,1.6MM | |
| VC114 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC115 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC12 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC122 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| VC123 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC124 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| VC125 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC126 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC127 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC128 | 2203-000257 | C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,1608,- | |
| VC129 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC13 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC131 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC132 | 2401-001895 | C-AL;100UF,20%,16V,GP,BK,6.3X11MM,2 | |
| VC133 | 2401-001895 | C-AL;100UF,20%,16V,GP,BK,6.3X11MM,2 | |
| VC135 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC136 | 2203-000384 | C-CERAMIC,CHIP;15PF,5%,50V,NPO,TP,1608,- | |
| VC137 | 2203-000384 | C-CERAMIC,CHIP;15PF,5%,50V,NPO,TP,1608,- | |
| VC138 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC139 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC14 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC15 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC16 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC17 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC18 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC19 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC2 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC20 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC21 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC22 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC23 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC24 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC25 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC26 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC28 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC29 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC3 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC30 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC31 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC32 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC34 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC35 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| VC36 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC37 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC38 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC39 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| VC4 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC40 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC41 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC43 | 2401-000907 | C-AL;22UF,20%,16V,GP,-,5X11,2MM | |
| VC44 | 2401-000778 | C-AL;220UF,20%,10V,GP,-,6.3X11,2.5M | |
| VC47 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC48 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| VC5 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC50 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC51 | 2203-005083 | C-CERAMIC,CHIP;220NF,10%,50V,X7R,TP,1608,- | |
| VC52 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC53 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC54 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| VC55 | 2401-000778 | C-AL;220UF,20%,10V,GP,-,6.3X11,2.5M | |
| VC56 | 2401-000778 | C-AL;220UF,20%,10V,GP,-,6.3X11,2.5M | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| VC57 | 2401-000778 | C-AL;220UF,20%,10V,GP,-,6.3X11,2.5M | |
| VC58 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC59 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| VC6 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC7 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC71 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC72 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| VC73 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC74 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| VC76 | 2401-000778 | C-AL;220UF,20%,10V,GP,-,6.3X11,2.5M | |
| VC79 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| VC8 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC80 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC83 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC84 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC85 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| VC88 | 2203-001609 | C-CERAMIC,CHIP;22NF,10%,16V,X7R,TP,1608,1.6MM | |
| VC89 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC9 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC90 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| VC91 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC93 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC94 | 2203-001556 | C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,TP,1608, | |
| VC95 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| VC99 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | |
| VCN11 | 3708-001086 | CONNECTOR-FPC/FC/PIC;28P,1.25MM,STRAIGHT,SN | |
| VCN14 | AH37-20001U | JACK;M1795 D3.5,- | |
| VFLT1 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| VFLT10 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| VFLT2 | 2909-001022 | FILTER-LC;-,0~+7.5MHZ,4.5DB,TP,1.5~4.5DB | |
| VFLT3 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| VFLT4 | 2909-001038 | FILTER-LC;0.1MHZ,-,1DB,TP,3+-2.5DB/+7.5M | |
| VFLT5 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| VFLT6 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| VFLT7 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| VFLT8 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| VFLT9 | 2901-001025 | FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8,TP | |
| VIC1 | 1204-001196 | IC-DECODER;DVD-1,QFP,208P,-,PLASTIC,5V,1. | |
| VIC10 | 0801-002166 | IC-CMOS LOGIC;7SHU04,INVERTER GATE,SOP,5P,6. | |
| VIC12 | 0801-002096 | IC-CMOS LOGIC;7SH08,AND GATE,SOP,5P,110MIL,S | |
| VIC14 | 0801-002097 | IC-CMOS LOGIC;7SET08,AND GATE,SOP,5P,110MIL, | |
| VIC2 | 1102-001042 | IC-EPROM;27C4096,256KX16BIT,DIP,40P,600 | DVD858V ONLY |
| VIC2A | 1102-001042 | IC-EPROM;27C4096,256KX16BIT,DIP,40P,600 | DVD878KV ONLY |
| VIC3 | 1105-001009 | IC-DRAM;416C254,256KX16BIT,SOJ,40P,102 | |
| VIC31 | 1204-001197 | IC-ENCODER;STV0119,SOP,28P,291MIL,PLASTIC | |
| VIC32 | AH14-10004T | IC-ANALOG M/PLEXER;MC14053BD,SOP,TAPE 16P ANALOG | |
| VIC33 | AC14-12012B | IC;BA7046F-T1,SOP,- | |
| VIC37 | 0801-000885 | IC-CMOS LOGIC;7S04,INVERTER,SOP,5P,150MIL,SI | |
| VIC4 | 1105-001009 | IC-DRAM;416C254,256KX16BIT,SOJ,40P,102 | |
| VIC5 | 1105-001009 | IC-DRAM;416C254,256KX16BIT,SOJ,40P,102 | |
| VIC6 | 1105-001009 | IC-DRAM;416C254,256KX16BIT,SOJ,40P,102 | |
| VIC7 | 1105-001009 | IC-DRAM;416C254,256KX16BIT,SOJ,40P,102 | |
| VIC8 | 0801-002206 | IC-CMOS LOGIC;74HC157,MULTIPLEXER,SOP,16P,15 | |
| VIC9 | 0801-002206 | IC-CMOS LOGIC;74HC157,MULTIPLEXER,SOP,16P,15 | |
| VJP2 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| VL1 | 2007-000029 | R-CHIP;0OHM,5%,1/10W,DA,TP,2012 | |
| VL11 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL12 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL14 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL15 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL16 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL17 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL19 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL2 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL20 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL21 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL23 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL24 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL25 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL26 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL27 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL28 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL29 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL3 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL30 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL4 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL6 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL7 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL8 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VL9 | 3301-000319 | CORE-FERRITE BEAD;AB,2.0X1.25X0.9MM,1000,3000G | |
| VQ1 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ10 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ11 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ12 | 0501-000314 | TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,TP,90- | |
| VQ13 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ14 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ15 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ16 | 0501-000314 | TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,TP,90- | |
| VQ17 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ18 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ19 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ2 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ20 | 0501-000314 | TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,TP,90- | |
| VQ21 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ22 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ24 | 0501-000314 | TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,TP,90- | |
| VQ26 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ27 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ28 | 0501-000314 | TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,TP,90- | |
| VQ29 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ3 | 0501-000314 | TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,TP,90- | |
| VQ30 | 0501-000314 | TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,TP,90- | |
| VQ31 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ32 | 0501-000314 | TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,TP,90- | |
| VQ35 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ36 | 0501-000314 | TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,TP,90- | |
| VQ37 | 0501-000314 | TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,TP,90- | |
| VQ38 | 0501-000616 | TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L,TP,16 | |
| VQ4 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ5 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| VQ6 | 0501-000314 | TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,TP,90- | |
| VQ7 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ8 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VQ9 | 0501-000341 | TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-23,TP, | |
| VR1 | 2007-000124 | R-CHIP;2.2KOHM,5%,1/16W,DA,TP,1608 | |
| VR10 | 2007-000124 | R-CHIP;2.2KOHM,5%,1/16W,DA,TP,1608 | |
| VR100 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR101 | 2007-001167 | R-CHIP;75OHM,5%,1/16W,DA,TP,1608 | |
| VR103 | 2007-001167 | R-CHIP;75OHM,5%,1/16W,DA,TP,1608 | |
| VR105 | 2007-001167 | R-CHIP;75OHM,5%,1/16W,DA,TP,1608 | |
| VR106 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR109 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR11 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| VR110 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR111 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| VR112 | 2007-000107 | R-CHIP;470KOHM,5%,1/16W,DA,TP,1608 | |
| VR113 | 2007-000103 | R-CHIP;120KOHM,5%,1/16W,DA,TP,1608 | |
| VR114 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| VR115 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR119 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR12 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR120 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR121 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR122 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR123 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR124 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR125 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR126 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR127 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| VR128 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| VR129 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR13 | 2007-000572 | R-CHIP;220OHM,5%,1/10W,DA,TP,2012 | |
| VR14 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR15 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR16 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR17 | 2007-000082 | R-CHIP;3.3KOHM,5%,1/16W,DA,TP,1608 | |
| VR18 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| VR19 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR2 | 2007-000121 | R-CHIP;820OHM,5%,1/16W,DA,TP,1608 | |
| VR20 | 2007-000822 | R-CHIP;390OHM,5%,1/10W,DA,TP,2012 | |
| VR200 | 2007-000822 | R-CHIP;390OHM,5%,1/10W,DA,TP,2012 | |
| VR201 | 2007-000575 | R-CHIP;220OHM,5%,1/8W,DA,TP,3216 | |
| VR204 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| VR205 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| VR206 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| VR207 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| VR208 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR209 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| VR21 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR210 | 2007-000084 | R-CHIP;4.7KOHM,5%,1/16W,DA,TP,1608 | |
| VR211 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR212 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| VR213 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| VR214 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| VR215 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| VR216 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| VR217 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| VR218 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| VR219 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| VR22 | 2007-000121 | R-CHIP;820OHM,5%,1/16W,DA,TP,1608 | |
| VR220 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| VR221 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| VR222 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| VR223 | 2007-000113 | R-CHIP;33OHM,5%,1/16W,DA,TP,1608 | |
| VR224 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR225 | 2007-000124 | R-CHIP;2.2KOHM,5%,1/16W,DA,TP,1608 | |
| VR23 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR24 | 2007-001657 | R-CHIP;240OHM,1%,1/10W,DA,TP,2012 | |
| VR25 | 2007-000539 | R-CHIP;200OHM,5%,1/16W,DA,TP,1608 | |
| VR27 | 2007-000077 | R-CHIP;470OHM,5%,1/16W,DA,TP,1608 | |
| VR28 | 2007-000572 | R-CHIP;220OHM,5%,1/10W,DA,TP,2012 | |
| VR29 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR3 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR30 | 2007-001167 | R-CHIP;75OHM,5%,1/16W,DA,TP,1608 | |
| VR31 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| VR32 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR33 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR34 | 2007-000077 | R-CHIP;470OHM,5%,1/16W,DA,TP,1608 | |
| VR35 | 2007-000822 | R-CHIP;390OHM,5%,1/10W,DA,TP,2012 | |
| VR36 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR37 | 2007-000082 | R-CHIP;3.3KOHM,5%,1/16W,DA,TP,1608 | |
| VR38 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| VR39 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR4 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR40 | 2007-000121 | R-CHIP;820OHM,5%,1/16W,DA,TP,1608 | |
| VR41 | 2007-000122 | R-CHIP;1.2KOHM,5%,1/16W,DA,TP,1608 | |
| VR42 | 2007-000122 | R-CHIP;1.2KOHM,5%,1/16W,DA,TP,1608 | |
| VR43 | 2007-001657 | R-CHIP;240OHM,1%,1/10W,DA,TP,2012 | |
| VR44 | 2007-000539 | R-CHIP;200OHM,5%,1/16W,DA,TP,1608 | |
| VR46 | 2007-000572 | R-CHIP;220OHM,5%,1/10W,DA,TP,2012 | |
| VR47 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR48 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| VR49 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR5 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR50 | 2007-000822 | R-CHIP;390OHM,5%,1/10W,DA,TP,2012 | |
| VR51 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR52 | 2007-000120 | R-CHIP;680OHM,5%,1/16W,DA,TP,1608 | |
| VR53 | 2007-000082 | R-CHIP;3.3KOHM,5%,1/16W,DA,TP,1608 | |
| VR54 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| VR55 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR56 | 2007-001657 | R-CHIP;240OHM,1%,1/10W,DA,TP,2012 | |
| VR57 | 2007-000539 | R-CHIP;200OHM,5%,1/16W,DA,TP,1608 | |
| VR59 | 2007-000121 | R-CHIP;820OHM,5%,1/16W,DA,TP,1608 | |
| VR6 | 2007-001167 | R-CHIP;75OHM,5%,1/16W,DA,TP,1608 | |
| VR60 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR61 | 2007-000572 | R-CHIP;220OHM,5%,1/10W,DA,TP,2012 | |
| VR62 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR63 | 2007-001167 | R-CHIP;75OHM,5%,1/16W,DA,TP,1608 | |
| VR64 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR65 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| VR66 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR67 | 2007-000079 | R-CHIP;1.8KOHM,5%,1/16W,DA,TP,1608 | |
| VR68 | 2007-000076 | R-CHIP;330OHM,5%,1/16W,DA,TP,1608 | |
| VR69 | 2007-000070 | R-CHIP;0OHM,5%,1/16W,DA,TP,1608 | |
| VR7 | 2007-001657 | R-CHIP;240OHM,1%,1/10W,DA,TP,2012 | |
| VR70 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| VR72 | 2007-000965 | R-CHIP;5.1KOHM,5%,1/16W,DA,TP,1608 | |
| VR74 | 2007-000076 | R-CHIP;330OHM,5%,1/16W,DA,TP,1608 | |
| VR75 | 2007-000096 | R-CHIP;30KOHM,5%,1/16W,DA,TP,1608 | |
| VR76 | 2007-000120 | R-CHIP;680OHM,5%,1/16W,DA,TP,1608 | |
| VR77 | 2007-000079 | R-CHIP;1.8KOHM,5%,1/16W,DA,TP,1608 | |
| VR78 | 2007-001010 | R-CHIP;51KOHM,5%,1/16W,DA,TP,1608 | |
| VR8 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR80 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR81 | 2007-000539 | R-CHIP;200OHM,5%,1/16W,DA,TP,1608 | |
| VR83 | 2007-000090 | R-CHIP;10KOHM,5%,1/16W,DA,TP,1608 | |
| VR84 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR85 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR86 | 2007-001167 | R-CHIP;75OHM,5%,1/16W,DA,TP,1608 | |
| VR87 | 2007-000120 | R-CHIP;680OHM,5%,1/16W,DA,TP,1608 | |
| VR88 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR9 | 2007-000539 | R-CHIP;200OHM,5%,1/16W,DA,TP,1608 | |
| VR90 | 2007-000509 | R-CHIP;2.4KOHM,1%,1/16W,DA,TP,1608 | |
| VR91 | 2007-001442 | R-CHIP;10OHM,5%,1/16W,DA,TP,1608 | |
| VR92 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR93 | 2007-000078 | R-CHIP;1KOHM,5%,1/16W,DA,TP,1608 | |
| VR94 | 2007-000120 | R-CHIP;680OHM,5%,1/16W,DA,TP,1608 | |
| VR95 | 2007-000074 | R-CHIP;100OHM,5%,1/16W,DA,TP,1608 | |
| VR96 | 2007-000570 | R-CHIP;220OHM,1%,1/16W,DA,TP,1608 | |
| VR97 | 2007-000570 | R-CHIP;220OHM,1%,1/16W,DA,TP,1608 | |
| VR98 | 2007-000570 | R-CHIP;220OHM,1%,1/16W,DA,TP,1608 | |
| VR99 | 2007-000570 | R-CHIP;220OHM,1%,1/16W,DA,TP,1608 | |
| VS1 | 3704-000272 | SOCKET-IC;40P,DIP,SN,2.54MM | DVD878KV ONLY |
| VY1 | 2801-003366 | CRYSTAL-UNIT;30MHZ,50PPM,28-AAM,20PF,60OHM, | |
| VZD1 | B4106-0230 | DIODE-ZENER,CHIP;UDZ3.9B-TE17 3.89/4.16V 5MA T | |

## 29 AH90-10727U ASSY- PCB FRONT;DVD858V

| | | |
|---|---|---|
| FC1 | 2401-000907 | C-AL;22UF,20%,16V,GP,-,5X11,2MM |
| FC10 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 |
| FC12 | 2401-001895 | C-AL;100UF,20%,16V,GP,BK,6.3X11MM,2 |
| FC13 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 |
| FC14 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 |
| FC15 | 2401-001895 | C-AL;100UF,20%,16V,GP,BK,6.3X11MM,2 |
| FC2 | 2202-000161 | C-CERAMIC,MLC-AXIAL;15PF,5%,50V,NPO,TP,2.5X4.3,- |
| FC3 | 2202-000161 | C-CERAMIC,MLC-AXIAL;15PF,5%,50V,NPO,TP,2.5X4.3,- |
| FC4 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 |
| FC5 | 2401-001511 | C-AL;47UF,20%,16V,GP,-,6X7,5 |
| FC6 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 |
| FC7 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 |
| FC8 | 2401-001511 | C-AL;47UF,20%,16V,GP,-,6X7,5 |
| FC9 | 2401-001572 | C-AL;47UF,20%,50V,GP,-,6.3X11,2.5MM |
| FD10 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO |
| FD5 | 0601-000218 | LED;INVERTER,RED,3MM,650NM |
| FD6 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| FD7 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO | |
| FD8 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO | |
| FD9 | 0403-000551 | DIODE-ZENER;MTZ3.9B,3.9V,3.89-4.16V,500MW, | |
| FIC1 | AH11-10002F | IC-MASK ROM;LC86P6232,-,DIP | |
| FIC2 | 1203-001252 | IC-VOL. DETECTOR;7545,TO-92,3P,-,PLASTIC,-,200M | |
| FIC3 | AH07-20045K | VF-DISPLAY;SVA-11MM08,14SEG,26X107.5MM,DV | |
| FIC4 | AH59-60001B | REMOCON-MODULE;RC-38S2S 12MM,CD22R MESH,-,-,- | |
| FJP1 | 3708-001083 | CONNECTOR-FPC/FC/PIC;28P,1.25MM,ANGLE,SN | |
| FL1 | 2701-000114 | INDUCTOR-AXIAL;10UH,10%,2.5X3.4MM | |
| FR10 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR11 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR12 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR13 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR16 | 2001-000027 | R-CARBON;100OHM,5%,1/4W,AA,TP,2.4X6.4MM | |
| FR17 | 2001-000027 | R-CARBON;100OHM,5%,1/4W,AA,TP,2.4X6.4MM | |
| FR18 | 2001-000449 | R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| FR19 | 2001-000449 | R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| FR20 | 2001-000449 | R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| FR21 | 2001-000435 | R-CARBON;1MOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR23 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR24 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR25 | 2001-000780 | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR26 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR27 | 2001-000591 | R-CARBON;3.3KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| FR28 | 2001-000591 | R-CARBON;3.3KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| FR29 | 2001-000591 | R-CARBON;3.3KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| FR30 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR31 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR32 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR33 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR34 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR43 | 2001-000793 | R-CARBON;47OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR44 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR45 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR5 | 2001-000515 | R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR6 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR7 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR8 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR9 | 2001-000780 | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FSW1 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW2 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW3 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW4 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW5 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW6 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW7 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FY1 | 2802-000108 | RESONATOR-CERAMIC;12MHZ,0.5%,BK,10.0X5.0X10.0MM | |
| **19** | **AH90-10727H** | **ASSY-PCB FRONT;DVD878KV** | |
| FC1 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 | |
| FC10 | 2202-000796 | C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3.5X19,- | |
| FC15 | 2401-001511 | C-AL;47UF,20%,16V,GP,-,6X7,5 | |
| FC2 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 | |
| FC3 | 2401-000244 | C-AL;100UF,20%,10V,GP,TP,6.3X7,2.5M | |

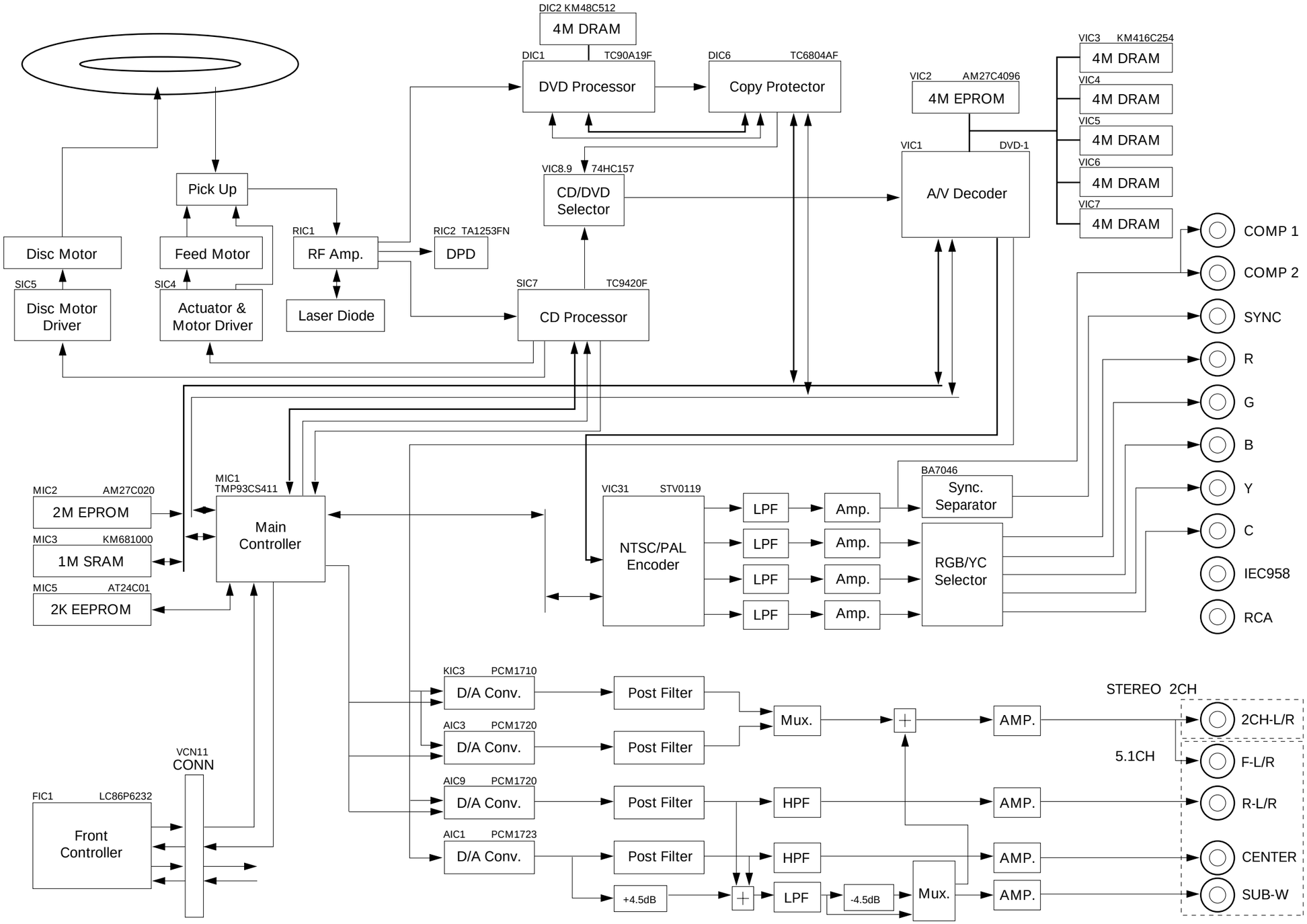
| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| FC4 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 | |
| FC5 | 2401-001511 | C-AL;47UF,20%,16V,GP,-,6X7,5 | |
| FC6 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 | |
| FC7 | 2202-000162 | C-CERAMIC,MLC-AXIAL;15PF,5%,50V,SL,3.5X19,-,TP | |
| FC8 | 2202-000162 | C-CERAMIC,MLC-AXIAL;15PF,5%,50V,SL,3.5X19,-,TP | |
| FC9 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 | |
| FCN1 | 3708-001083 | CONNECTOR-FPC/FC/PIC;28P,1.25MM,ANGLE,SN | |
| FD1 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO | |
| FD2 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO | |
| FD3 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO | |
| FD4 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO | |
| FD5 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO | |
| FD6 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO | |
| FD7 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO | |
| FD8 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO | |
| FD9 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO | |
| FIC1 | AH11-10002F | IC-MASK ROM;LC86P6232,-,DIP | |
| FIC2 | 1203-001252 | IC-VOL. DETECTOR;7545,TO-92,3P,-,PLASTIC,-,200M | |
| FL1 | 2701-000117 | INDUCTOR-AXIAL;10UH,5%,2.4X3.4MM | |
| FLED1 | 0601-000146 | LED;ROUND,GRN,3.1MM,563NM | |
| FLED10 | 0601-000146 | LED;ROUND,GRN,3.1MM,563NM | |
| FLED11 | 0601-000146 | LED;ROUND,GRN,3.1MM,563NM | |
| FLED12 | 0601-000146 | LED;ROUND,GRN,3.1MM,563NM | |
| FLED2 | 0601-000146 | LED;ROUND,GRN,3.1MM,563NM | |
| FLED3 | 0601-000146 | LED;ROUND,GRN,3.1MM,563NM | |
| FLED4 | 0601-000146 | LED;ROUND,GRN,3.1MM,563NM | |
| FLED5 | 0601-000146 | LED;ROUND,GRN,3.1MM,563NM | |
| FLED6 | 0601-000146 | LED;ROUND,GRN,3.1MM,563NM | |
| FLED7 | 0601-000146 | LED;ROUND,GRN,3.1MM,563NM | |
| FLED8 | 0601-000146 | LED;ROUND,GRN,3.1MM,563NM | |
| FLED9 | 0601-000146 | LED;ROUND,GRN,3.1MM,563NM | |
| FR1 | 2001-000515 | R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR10 | 2001-000515 | R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR11 | 2001-000515 | R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR12 | 2001-000515 | R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR15 | 2001-000435 | R-CARBON;1MOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR16 | 2001-000780 | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR17 | 2001-000449 | R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| FR18 | 2001-000449 | R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| FR19 | 2001-000449 | R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| FR2 | 2001-000515 | R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR20 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR21 | 2001-000027 | R-CARBON;100OHM,5%,1/4W,AA,TP,2.4X6.4MM | |
| FR22 | 2001-000027 | R-CARBON;100OHM,5%,1/4W,AA,TP,2.4X6.4MM | |
| FR3 | 2001-000515 | R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR31 | 2001-000591 | R-CARBON;3.3KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| FR32 | 2001-000591 | R-CARBON;3.3KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| FR33 | 2001-000591 | R-CARBON;3.3KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| FR34 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR35 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR36 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR37 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR38 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR39 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR4 | 2001-000515 | R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| FR40 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR41 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR42 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR43 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR44 | 2001-000084 | R-CARBON;100KOHM,5%,1/4W,AA,TP,2.4X6.4M | |
| FR45 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR46 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR47 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR48 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR5 | 2001-000515 | R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR6 | 2001-000515 | R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR7 | 2001-000515 | R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR8 | 2001-000515 | R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FR9 | 2001-000515 | R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| FREM | AH59-60001B | REMOCON-MODULE;RC-38S2S 12MM,CD22R MESH,-,-,- | |
| FSW1 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW10 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW11 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW12 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW13 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW14 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW15 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW16 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW17 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW2 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW3 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW4 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW5 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW6 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW7 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW8 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FSW9 | 3404-001008 | SWITCH-TACT;12V,20MA,160+-50,6X7.9X3.5MM,D | |
| FX1 | 2802-000108 | RESONATOR-CERAMIC;12MHZ,0.5%,BK,10.0X5.0X10.0MM | |
| FZD1 | 0403-000344 | DIODE-ZENER;UZ3.9B,3.9V,3.7-4.1V,500MW, | |
| U22 | AH07-20045K | VF-DISPLAY;SVA-11MM08,14SEG,26X107.5MM,DV | |
| **18** | **AH90-10729A** | **ASSY-KARAOKE PCB;DVD878KV ONLY** | |
| KC1 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 | |
| KC10 | 2202-000791 | C-CERAMIC,MLC-AXIAL;150PF,10%,50V,Y5P,TP,3.5X19,- | |
| KC11 | 2202-000809 | C-CERAMIC,MLC-AXIAL;3.3NF,20%,16V,Y5R,TP,3.5X19,- | |
| KC12 | 2202-000806 | C-CERAMIC,MLC-AXIAL;220PF,10%,50V,Y5P,TP,3.5X19,- | |
| KC13 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 | |
| KC14 | 2202-000216 | C-CERAMIC,MLC-AXIAL;27PF,5%,50V,SL,TP,3.5X19,- | |
| KC15 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 | |
| KC16 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 | |
| KC17 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 | |
| KC2 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5X1 | |
| KC3 | 2301-000438 | C-FILM,PEF;39NF,5%,50V,TP,9X12.5X4.5,6MM | |
| KC4 | 2301-000438 | C-FILM,PEF;39NF,5%,50V,TP,9X12.5X4.5,6MM | |
| KC6 | 2202-000796 | C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3.5X19,- | |
| KC7 | 2202-000781 | C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,TP,3.5X19,- | |
| KC8 | 2202-000809 | C-CERAMIC,MLC-AXIAL;3.3NF,20%,16V,Y5R,TP,3.5X19,- | |
| KC9 | 2202-000796 | C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3.5X19,- | |
| KCE1 | 2401-001507 | C-AL;47UF,20%,16V,GP,TP,6.3X5,5 | |

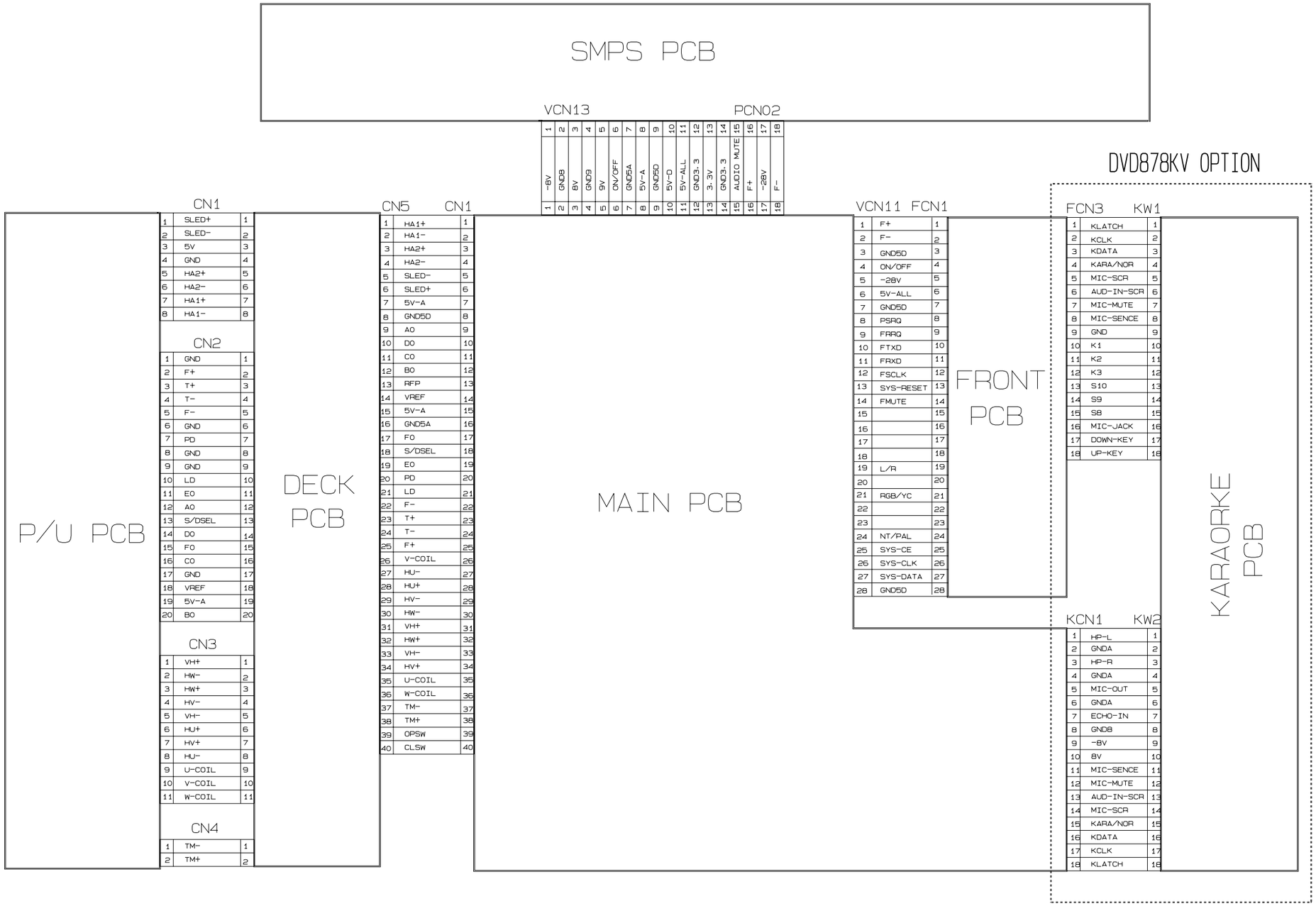
| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| KCE2 | 2401-001507 | C-AL;47UF,20%,16V,GP,TP,6.3X5,5 | |
| KCE3 | 2401-000652 | C-AL;2.2UF,20%,50V,GP,TP,4X5,5 | |
| KCE4 | 2401-001915 | C-AL;1UF,20%,50V,GP,TP,3X5,1MM | |
| KCE5 | 2401-001915 | C-AL;1UF,20%,50V,GP,TP,3X5,1MM | |
| KCE6 | 2401-000652 | C-AL;2.2UF,20%,50V,GP,TP,4X5,5 | |
| KCE8 | 2401-001507 | C-AL;47UF,20%,16V,GP,TP,6.3X5,5 | |
| KCE9 | 2401-001507 | C-AL;47UF,20%,16V,GP,TP,6.3X5,5 | |
| KD1 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO | |
| KD2 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO | |
| KD3 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO | |
| KD4 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO | |
| KEY-CO | 3722-000351 | JACK-PHONE;11P,3.5MM,AG,BLK,- | |
| KJACK1 | 3722-000363 | JACK-PHONE;9P,6.4MM,AU,BLK,- | |
| KJACK2 | 3722-000363 | JACK-PHONE;9P,6.4MM,AU,BLK,- | |
| KJACK3 | 3722-000345 | JACK-PHONE;3P,6.4MM,AG,BLK,- | |
| KOP1 | 1201-000191 | IC-OP AMP;4558,DIP,8P,300MIL,DUAL,20V/MV | |
| KOP2 | 1201-000191 | IC-OP AMP;4558,DIP,8P,300MIL,DUAL,20V/MV | |
| KOP3 | 1201-000191 | IC-OP AMP;4558,DIP,8P,300MIL,DUAL,20V/MV | |
| KR1 | 2001-000666 | R-CARBON;33OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR10 | 2001-000734 | R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| KR11 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR12 | 2001-000780 | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR13 | 2001-000734 | R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| KR14 | 2001-000734 | R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| KR15 | 2001-000362 | R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR16 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR17 | 2001-000780 | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR18 | 2001-000734 | R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| KR19 | 2001-000734 | R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| KR2 | 2001-000666 | R-CARBON;33OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR20 | 2001-000522 | R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR21 | 2001-000890 | R-CARBON;6.8KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| KR22 | 2001-000858 | R-CARBON;56KOHM,1%,1/8W,AD,TP,1.8X3.2MM | |
| KR23 | 2001-000645 | R-CARBON;330KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| KR24 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR25 | 2001-000273 | R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| KR3 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR30 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR31 | 2001-000780 | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR32 | 2001-000780 | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR4 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR5 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR6 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR7 | 2001-000780 | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR8 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | |
| KR9 | 2001-000734 | R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M | |
| KSW1 | 3404-000157 | SWITCH-TACT;12V,50MA,160GF+-50GF,-,SPST | |
| KSW2 | 3404-000157 | SWITCH-TACT;12V,50MA,160GF+-50GF,-,SPST | |
| KSW3 | 3404-000157 | SWITCH-TACT;12V,50MA,160GF+-50GF,-,SPST | |
| KSW4 | 3404-000157 | SWITCH-TACT;12V,50MA,160GF+-50GF,-,SPST | |
| KSW5 | 3404-000157 | SWITCH-TACT;12V,50MA,160GF+-50GF,-,SPST | |
| KSW6 | 3404-000157 | SWITCH-TACT;12V,50MA,160GF+-50GF,-,SPST | |
| KSW7 | 3404-000157 | SWITCH-TACT;12V,50MA,160GF+-50GF,-,SPST | |
| KSW8 | 3404-000157 | SWITCH-TACT;12V,50MA,160GF+-50GF,-,SPST | |
| KVR1 | 2101-001010 | VR-ROTARY;20KOHM,20%,1/20W,SIDE | |

| Loc. No | New Part No | Description and Specification | Remark |
|---|---|---|---|
| KVR2 | 2101-001010 | VR-ROTARY;20KOHM,20%,1/20W,SIDE | |
| KVR3 | 2101-001010 | VR-ROTARY;20KOHM,20%,1/20W,SIDE | |
| KVR4 | 2101-001019 | VR-ROTARY;20KOHM,20%,1/20W,SIDE | |
| KW1 | 3711-000736 | CONNECTOR-HEADER;BOX,18P,1R,2.5MM,BLACK,BRASS | |
| KZD1 | 0403-000354 | DIODE-ZENER;UZ5.1B,5.1V,4.8-5.4V,500MW, | |
| KZD2 | 0403-000354 | DIODE-ZENER;UZ5.1B,5.1V,4.8-5.4V,500MW, | |
| KZD30 | 0403-000354 | DIODE-ZENER;UZ5.1B,5.1V,4.8-5.4V,500MW, | |

# 8. Block Diagram



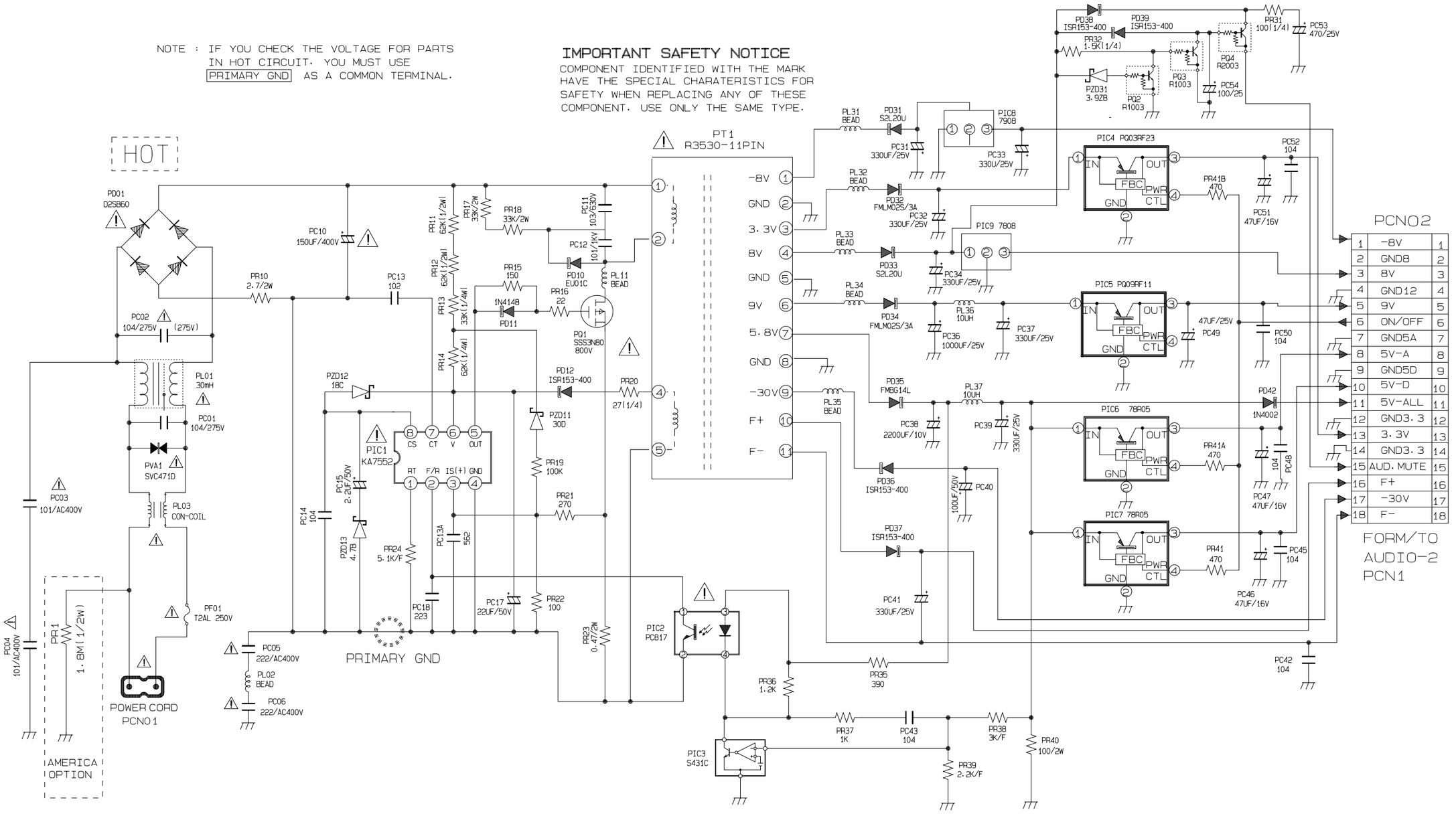
# 10. Wiring Diagram



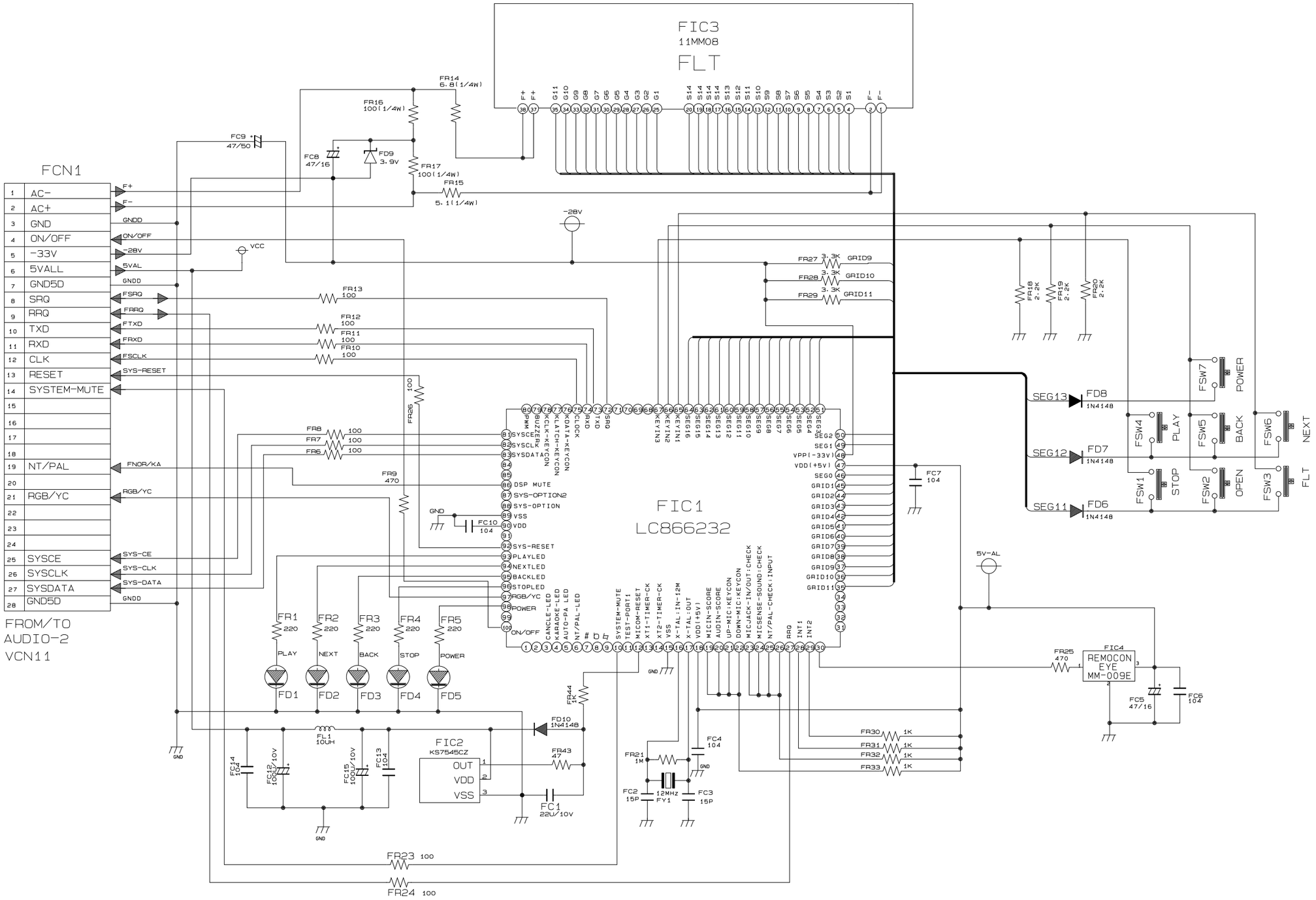
# 11. Schematic Diagrams


| | | Page |
|---|---|---|
| 11-1 | SMPS | 11-2 |
| 11-2 | FRONT(DVD858V) | 11-3 |
| 11-3 | FRONT(DVD878KV) | 11-4 |
| 11-4 | MICOM | 11-5 |
| 11-5 | SERVO | 11-6 |
| 11-6 | VIDEO | 11-7 |
| 11-7 | AUDIO-1 | 11-8 |
| 11-8 | AUDIO-2 | 11-9 |
| 11-9 | DATA PROCESSOR | 11-10 |
| 11-10 | A/V DECORDER | 11-11 |
| 11-11 | KARAOKE(DVD878KV) | 11-12 |
| 11-12 | PICK-UP/DECK | 11-13 |

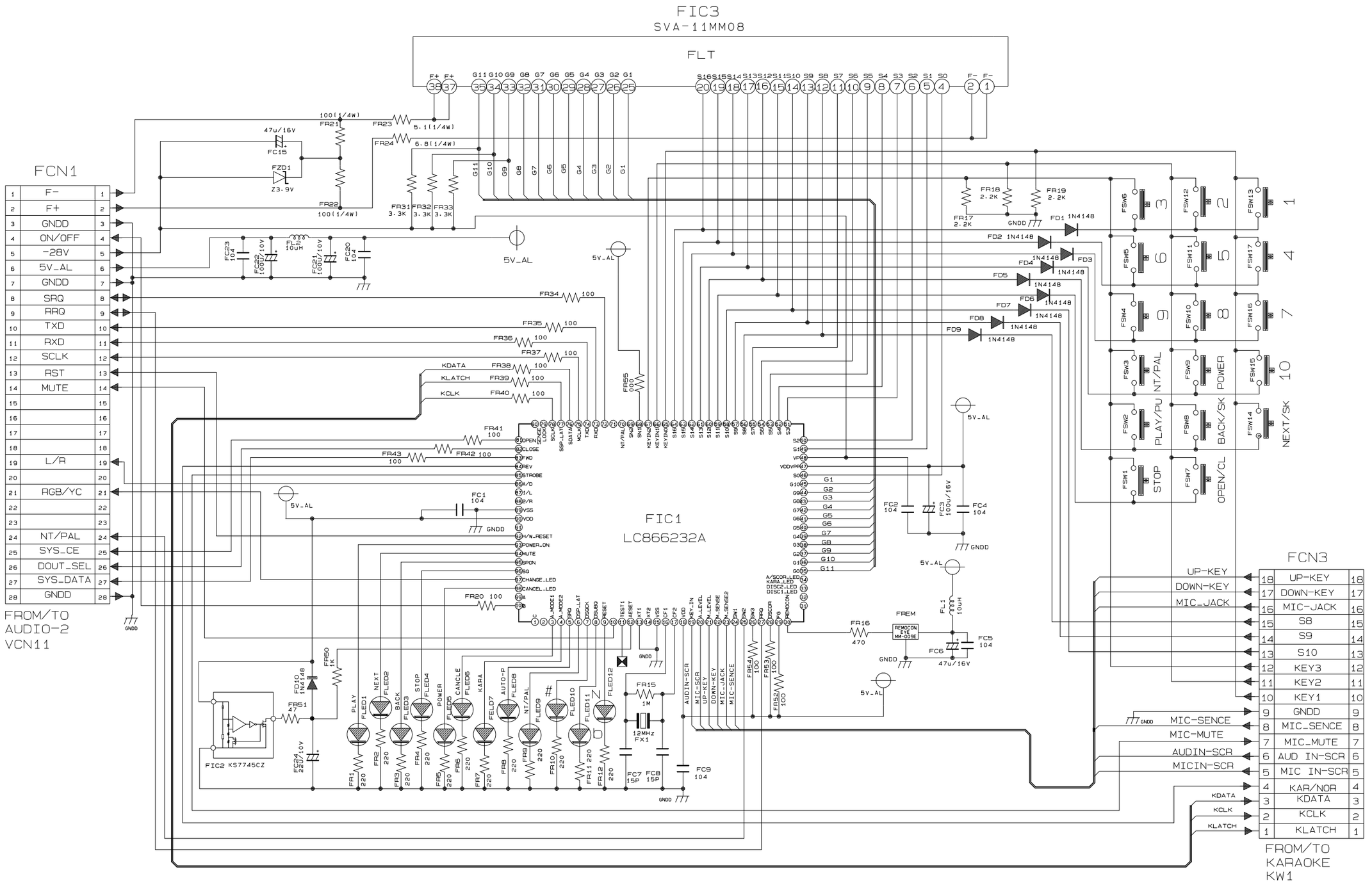
# 11-1 SMPS


NOTE : IF YOU CHECK THE VOLTAGE FOR PARTS IN HOT CIRCUIT. YOU MUST USE PRIMARY GND AS A COMMON TERMINAL.
IMPORTANT SAFETY NOTICE
COMPONENT IDENTIFIED WITH THE MARK HAVE THE SPECIAL CHARATERISTICS FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENT. USE ONLY THE SAME TYPE.
HOT
PT1 R3530-11PIN
PRIMARY GND
POWER CORD PCNO1
AMERICA OPTION
PCNO2
FORM/TO AUDIO-2 PCN1
-8V
GND
3.3V
8V
9V
5.8V
-30V
F+
F-
ON/OFF
5V-A
5V-D
5V-ALL
AUD.MUTE
PD01 D2SB60
PC10 150UF/400V
PC02 104/275V (275V)
PL01 30mH
PC01 104/275V
PVA1 SVC471D
PC03 101/AC400V
PL03 COIL-COIL
PC04 101/AC400V
PR1 1.8M(1/2W)
PF01 T2AL 250V
PR10 2.7/2W
PC13 102
PR11 62K(1/2W)
PR12 62K(1/2W)
PR13 33K(1/4W)
PR14 62K(1/4W)
PR17 33K/2W
PR18 33K/2W
PC11 103/630V
PC12 101/1KV
PD10 EU01C
PL11 BEAD
PR15 150
PR16 22
1N4148 PD11
PQ1 SSS3N80 800V
PZD12 18C
PD12 ISR153-400
PR20 27(1/4)
PZD11 30D
PR19 100K
PR21 270
PIC1 KA7552
CS CT V OUT RT F/R IS(+) GND
PC15 2.2UF/50V
PC14 104
PZD13 4.7B
PR24 5.1K/F
PC13A 562
PC18 223
PC17 22UF/50V
PR22 100
PR23 0.47/2W
PC05 222/AC400V
PL02 BEAD
PC06 222/AC400V
PIC2 PC817
PIC3 S431C
PR36 1.2K
PR37 1K
PC43 104
PR38 3K/F
PR39 2.2K/F
PR40 100/2W
PR35 390
PC42 104
PD38 ISR153-400
PD39 ISR153-400
PR32 1.5K(1/4)
PZD31 3.9ZB
PQ2 R1003
PQ3 R1003
PQ4 R2003
PR31 100(1/4)
PC53 470/25V
PC54 100/25
PL31 BEAD
PD31 S2L20U
PC31 330UF/25V
PIC8 7908
PC33 330UF/25V
PL32 BEAD
PD32 FMLM02S/3A
PC32 330UF/25V
PIC9 7808
PL33 BEAD
PD33 S2L20U
PC34 330UF/25V
PL34 BEAD
PD34 FMLM02S/3A
PC36 1000UF/25V
PL36 10UH
PC37 330UF/25V
PD35 FMBG14L
PL37 10UH
PC38 2200UF/10V
PC39 330UF/25V
PD36 ISR153-400
PC40 100UF/50V
PD37 ISR153-400
PC41 330UF/25V
PIC4 PQ03RF23
PIC5 PQ09RF11
PIC6 78R05
PIC7 78R05
IN OUT FBC PWR GND CTL
PR41B 470
PR41A 470
PR41 470
PC52 104
PC51 47UF/16V
47UF/25V PC49
PC50 104
PD42 1N4002
PC48 104
PC47 47UF/16V
PC45 104
PC46 47UF/16V

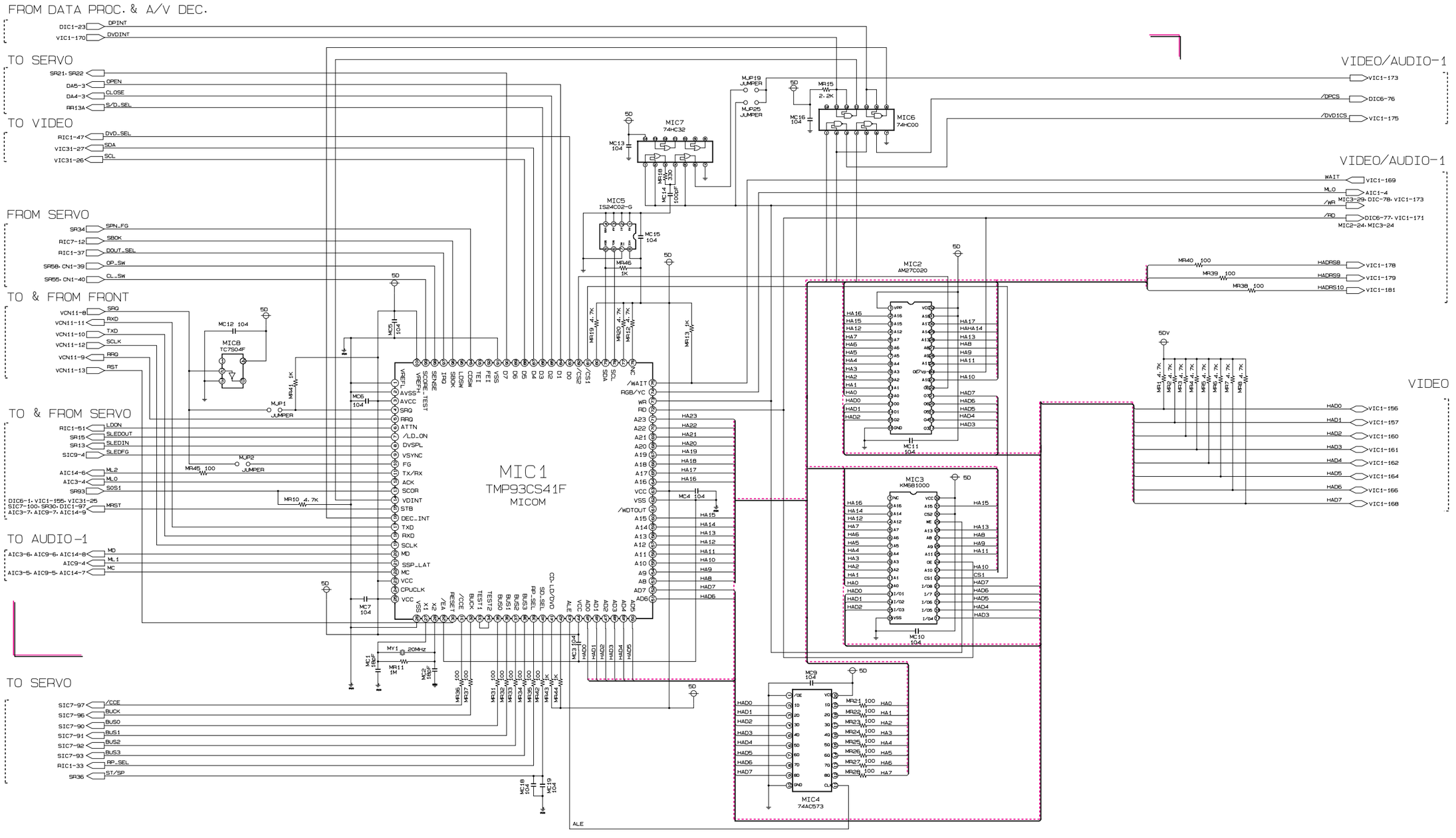
## 11-2 FRONT(DVD858V)



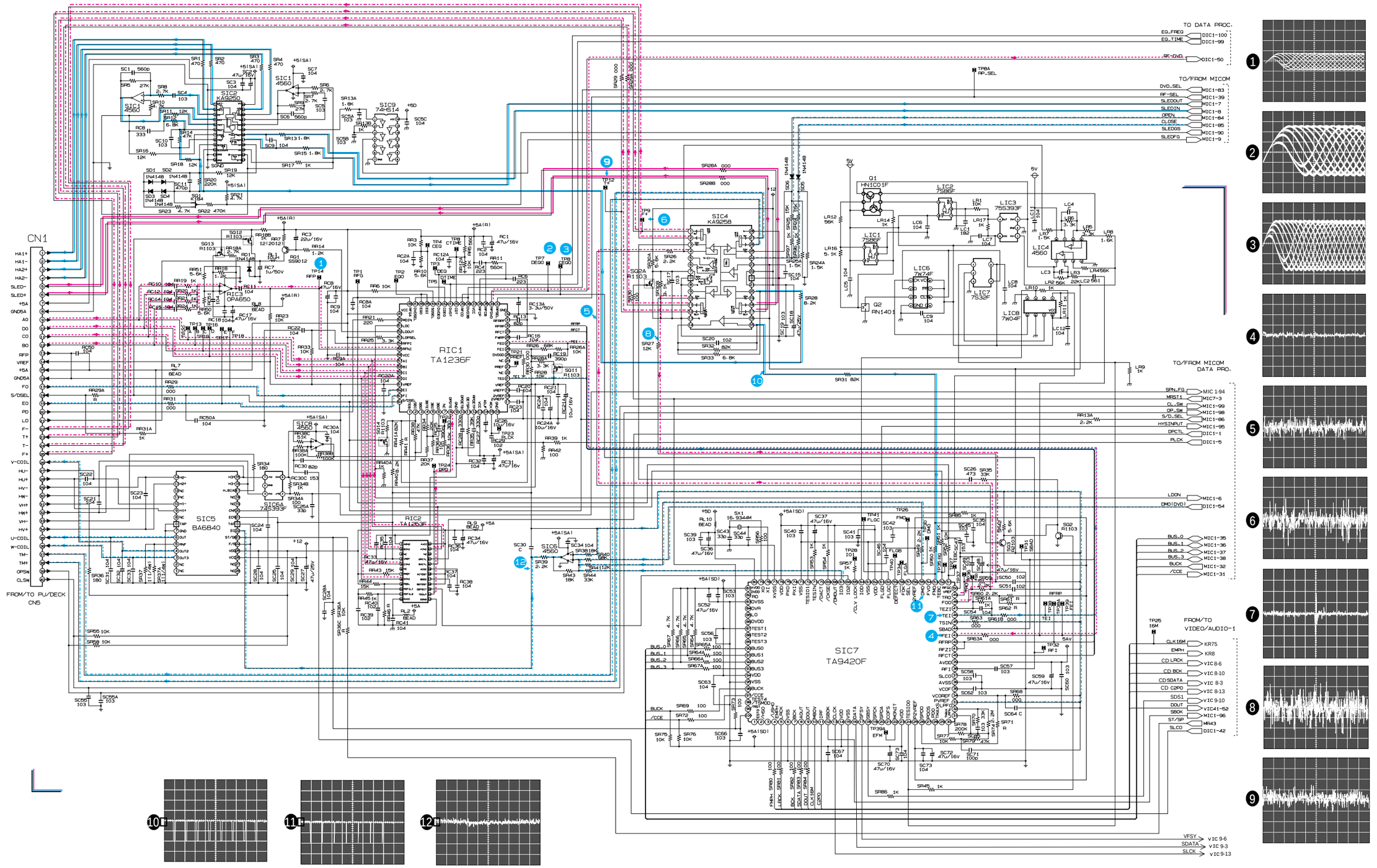
## 11-3 FRONT(DVD878KV)



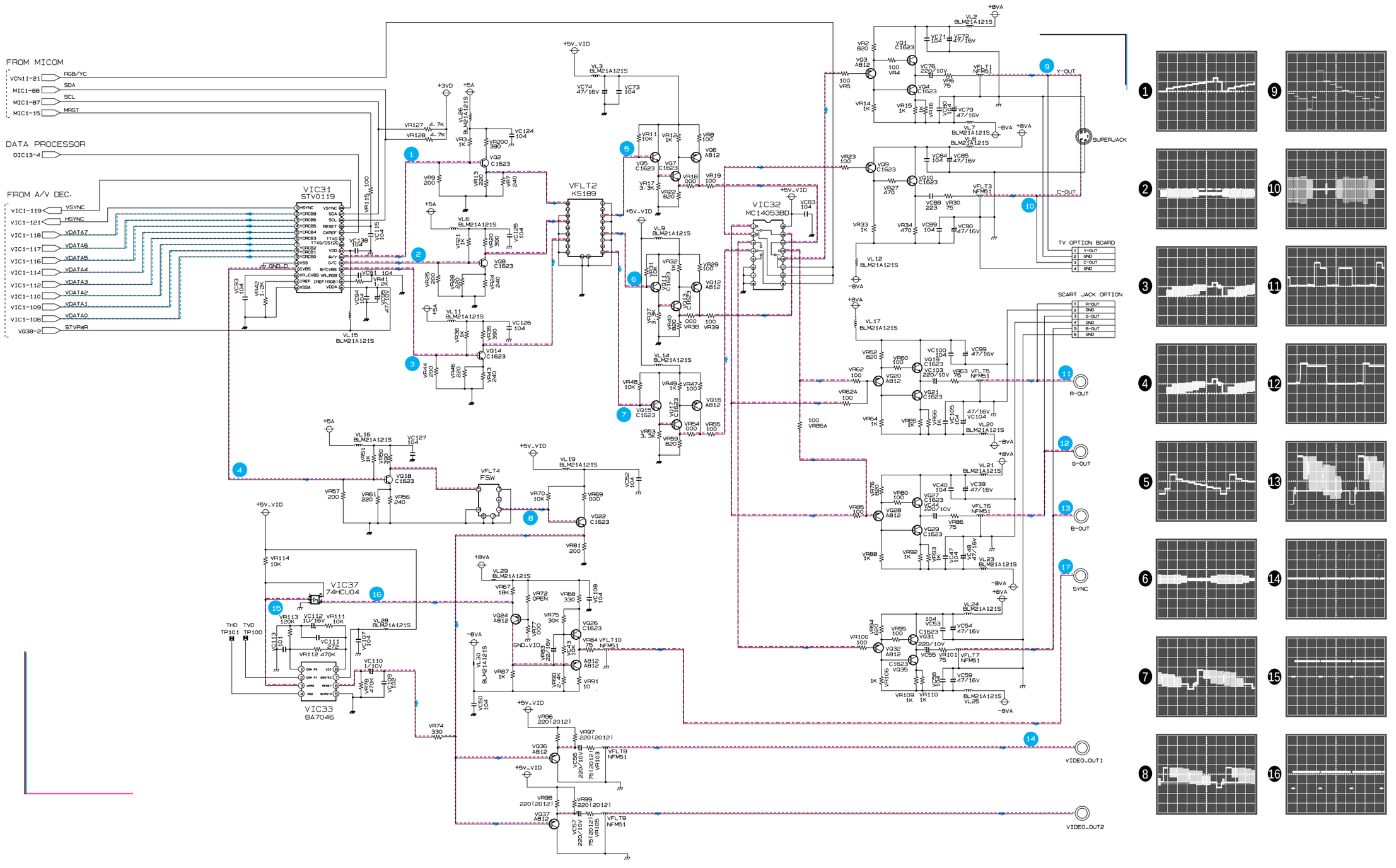
# 11-4 MICOM


FROM DATA PROC. & A/V DEC.
DIC1-23 DPINT
VIC1-170 DVDINT
TO SERVO
SR21, SR22
DA5-3 OPEN
DA4-3 CLOSE
RR13A S/D_SEL
TO VIDEO
RIC1-47 DVD_SEL
VIC31-27 SDA
VIC31-26 SCL
FROM SERVO
SR34 SPN_FG
RIC7-12 SBOK
RIC1-37 DOUT_SEL
SR58, CN1-39 OP_SW
SR55, CN1-40 CL_SW
TO & FROM FRONT
VCN11-8 SRQ
VCN11-11 RXD
VCN11-10 TXD
VCN11-12 SCLK
VCN11-9 RRQ
VCN11-13 RST
TO & FROM SERVO
RIC1-51 LDON
SR15 SLEDOUT
SR13 SLEDIN
SIC9-4 SLEDFG
AIC14-6 ML2
AIC3-4 ML0
SR93 SOS1
DIC6-1, VIC1-155, VIC31-25
SIC7-100, SR30, DIC1-97
AIC3-7, AIC9-7, AIC14-9 MRST
TO AUDIO-1
AIC3-6, AIC9-6, AIC14-8 MD
AIC9-4 ML1
AIC3-5, AIC9-5, AIC14-7 MC
TO SERVO
SIC7-97 /CCE
SIC7-96 BUCK
SIC7-90 BUS0
SIC7-91 BUS1
SIC7-92 BUS2
SIC7-93 BUS3
RIC1-33 RP_SEL
SR36 ST/SP
MIC1
TMP93CS41F
MICOM
MIC2
AM27C020
MIC3
KM681000
MIC4
74AC573
MIC5
IS24C02-G
MIC6
74HC00
MIC7
74HC32
MIC8
TC7S04F
VIDEO/AUDIO-1
VIC1-173
/DPCS DIC6-76
/DVD1CS VIC1-175
VIDEO/AUDIO-1
WAIT VIC1-169
ML0 AIC1-4
/WR MIC3-29, DIC-78, VIC1-173
/RD DIC6-77, VIC1-171
MIC2-24, MIC3-24
HADRS8 VIC1-178
HADRS9 VIC1-179
HADRS10 VIC1-181
VIDEO
HAD0 VIC1-156
HAD1 VIC1-157
HAD2 VIC1-160
HAD3 VIC1-161
HAD4 VIC1-162
HAD5 VIC1-164
HAD6 VIC1-166
HAD7 VIC1-168
ALE

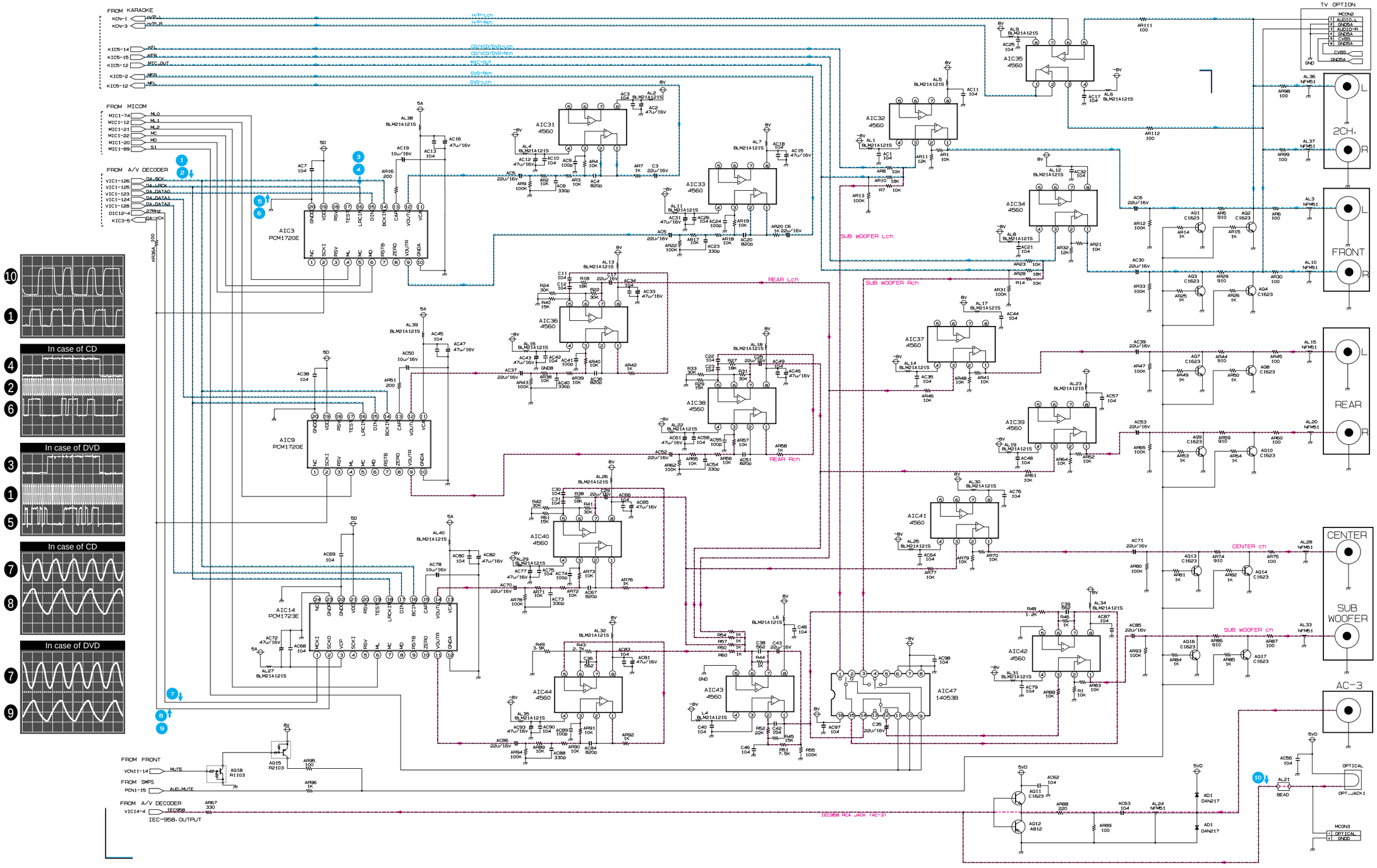
# 11-5 SERVO


CN1
SIC1 4560
SIC2 KA2250
SIC3 OPA650
SIC4 KA9258
SIC5 BA6840
SIC6 4560
SIC7 TA9420F
SIC8 7S32F
SIC9 74HS14
RIC1 TA1236F
RIC2 TA1253F
Q1 HN1C01F
Q2 RN1401
LIC1 7S86F
LIC2 7S86F
LIC3 7S393F
LIC4 4560
LIC5 7W74F
LIC6 7W74F
LIC7 7S32F
LIC8 7W04F
TO DATA PROC.
TO/FROM MICOM
TO/FROM MICOM DATA PRO.
FROM/TO PU/DECK CN5
FROM/TO VIDEO/AUDIO-1
EQ_FREQ
EQ_TIME
RF-DVD
DVD_SEL
RF_SEL
SLEDOUT
SLEDIN
OPEN
CLOSE
SLEDGS
SLEDFG
LDON
DMO(DVD)
SFN_FG
MBST1
CL_SW
OP_SW
S/D_SEL
HYSINPUT
DPCTL
PLCK
BUS_0
BUS_1
BUS_2
BUS_3
BUCK
/CCE
CLK16M
EMPH
CD LRCK
CD BCK
CD SDATA
CD C2PO
SDS1
DOUT
SBCK
ST/SP
SLCO
VFSY
SDATA
SLCK

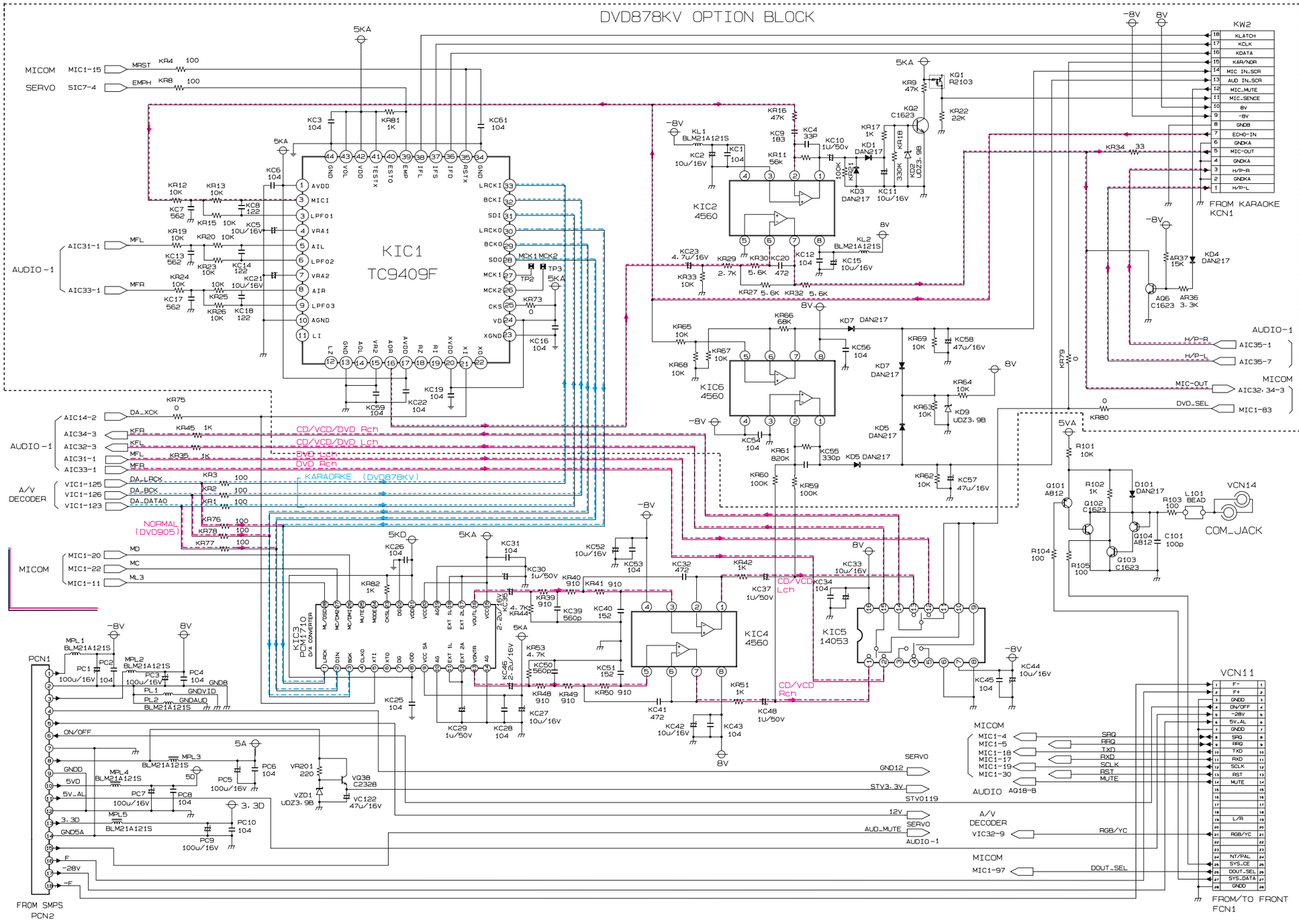
# 11-6 VIDEO


FROM MICOM
VCN11-21 RGB/YC
MIC1-88 SDA
MIC1-87 SCL
MIC1-15 MRST
DATA PROCESSOR
DIC13-4
FROM A/V DEC.
VIC1-119 VSYNC
VIC1-121 HSYNC
VIC1-118 VDATA7
VIC1-117 VDATA6
VIC1-116 VDATA5
VIC1-114 VDATA4
VIC1-112 VDATA3
VIC1-110 VDATA2
VIC1-109 VDATA1
VIC1-108 VDATA0
VQ38-2 STVPWR
VIC31 STV0119
VIC32 MC14053BD
VIC33 BA7046
VIC37 74HCU04
VFLT2 KS189
VFLT4 FSW
+8VA
+5V_VID
+5A
+3VD
-8VA
GND_D
GND_VID
SUPERJACK
Y-OUT
C-OUT
TV OPTION BOARD
SCART JACK OPTION
R-OUT
G-OUT
B-OUT
SYNC
VIDEO_OUT1
VIDEO_OUT2
THD TP101
TVD TP100

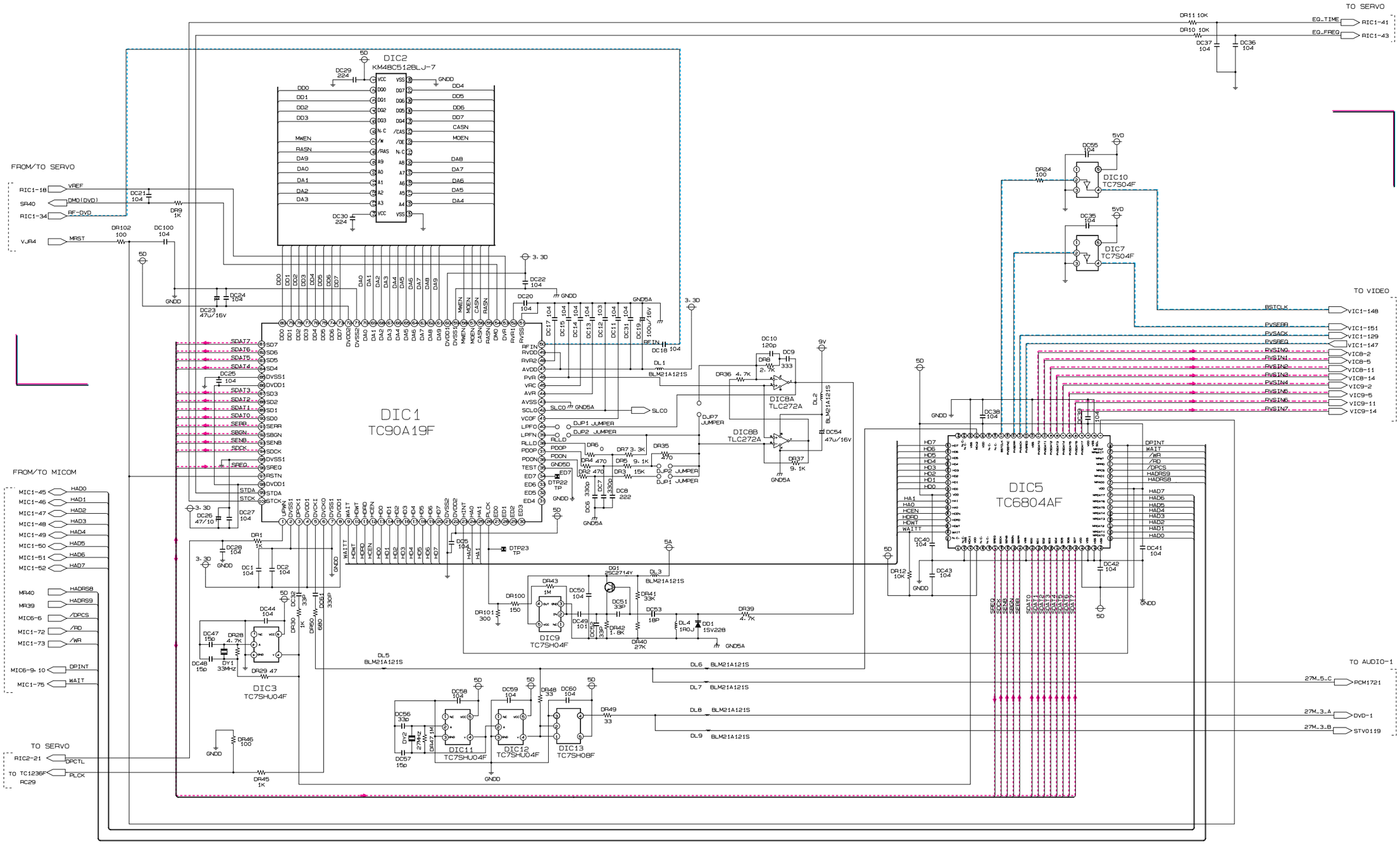
# 11-7 AUDIO - 1


FROM KARAOKE
FROM MICOM
FROM A/V DECODER
AIC3 PCM1720E
AIC9 PCM1720E
AIC14 PCM1723E
AIC31 4560
AIC32 4560
AIC33 4560
AIC34 4560
AIC35 4560
AIC36 4560
AIC37 4560
AIC38 4560
AIC39 4560
AIC40 4560
AIC41 4560
AIC42 4560
AIC43 4560
AIC44 4560
AIC47 14053B
SUB WOOFER Lch
SUB WOOFER Rch
REAR Lch
REAR Rch
CENTER ch
SUB WOOFER ch
TV OPTION
2CH. L
2CH. R
FRONT L
FRONT R
REAR L
REAR R
CENTER
SUB WOOFER
AC-3
OPTICAL
In case of CD
In case of DVD
In case of CD
In case of DVD
FROM FRONT
FROM SMPS
FROM A/V DECODER
IEC-958 OUTPUT
IEC958 RCA JACK (AC-3)

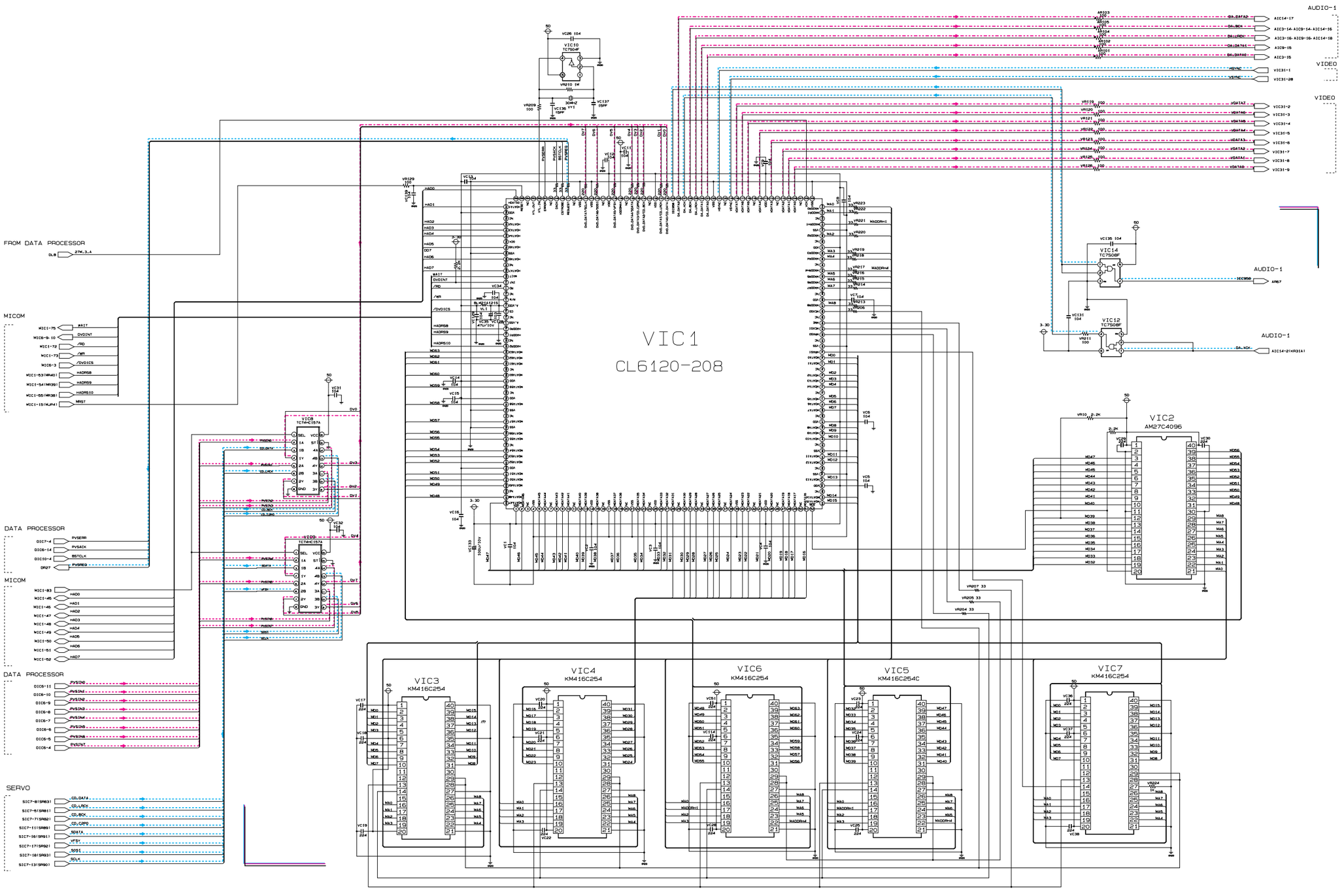
# 11-8 AUDIO - 2


DVD878KV OPTION BLOCK
KIC1
TC9409F
KIC2
4560
KIC4
4560
KIC6
4560
KIC5
14053
KIC3
PCM1710
D/A CONVERTER
KW2
FROM KARAOKE
KCN1
AUDIO-1
MICOM
MIC-OUT
DVD_SEL
H/P-R
H/P-L
COM_JACK
VCN14
VCN11
FROM/TO FRONT
FCN1
FROM SMPS
PCN2
PCN1
A/V
DECODER
CD/VCD/DVD Rch
CD/VCD/DVD Lch
DVD Lch
DVD Rch
KARAOKE (DVD878KV)
NORMAL
(DVD905)
CD/VCD
Lch
CD/VCD
Rch
SERVO
AUDIO
AQ18-B
RGB/YC
DOUT_SEL
FROM/TO FRONT
FCN1

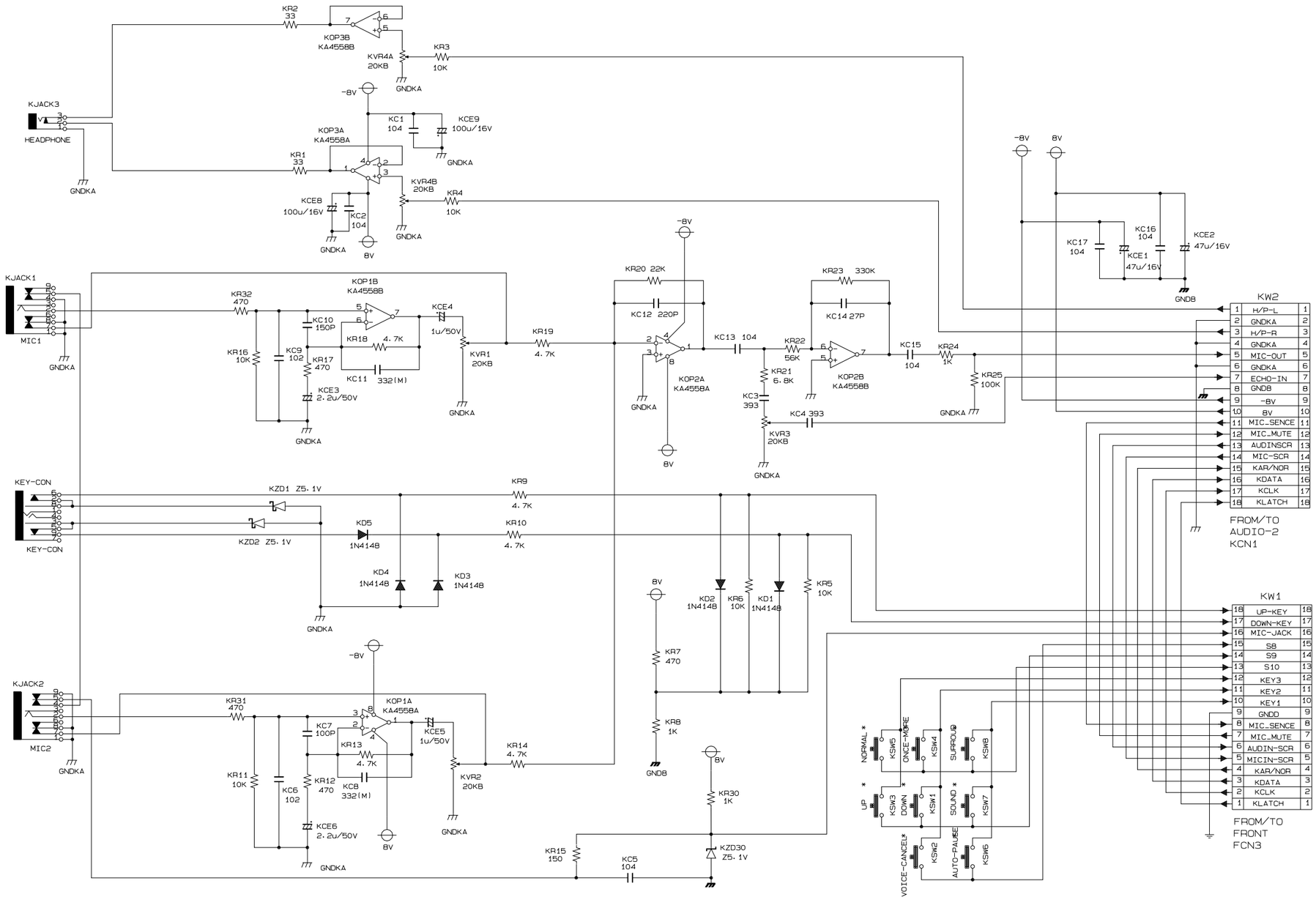
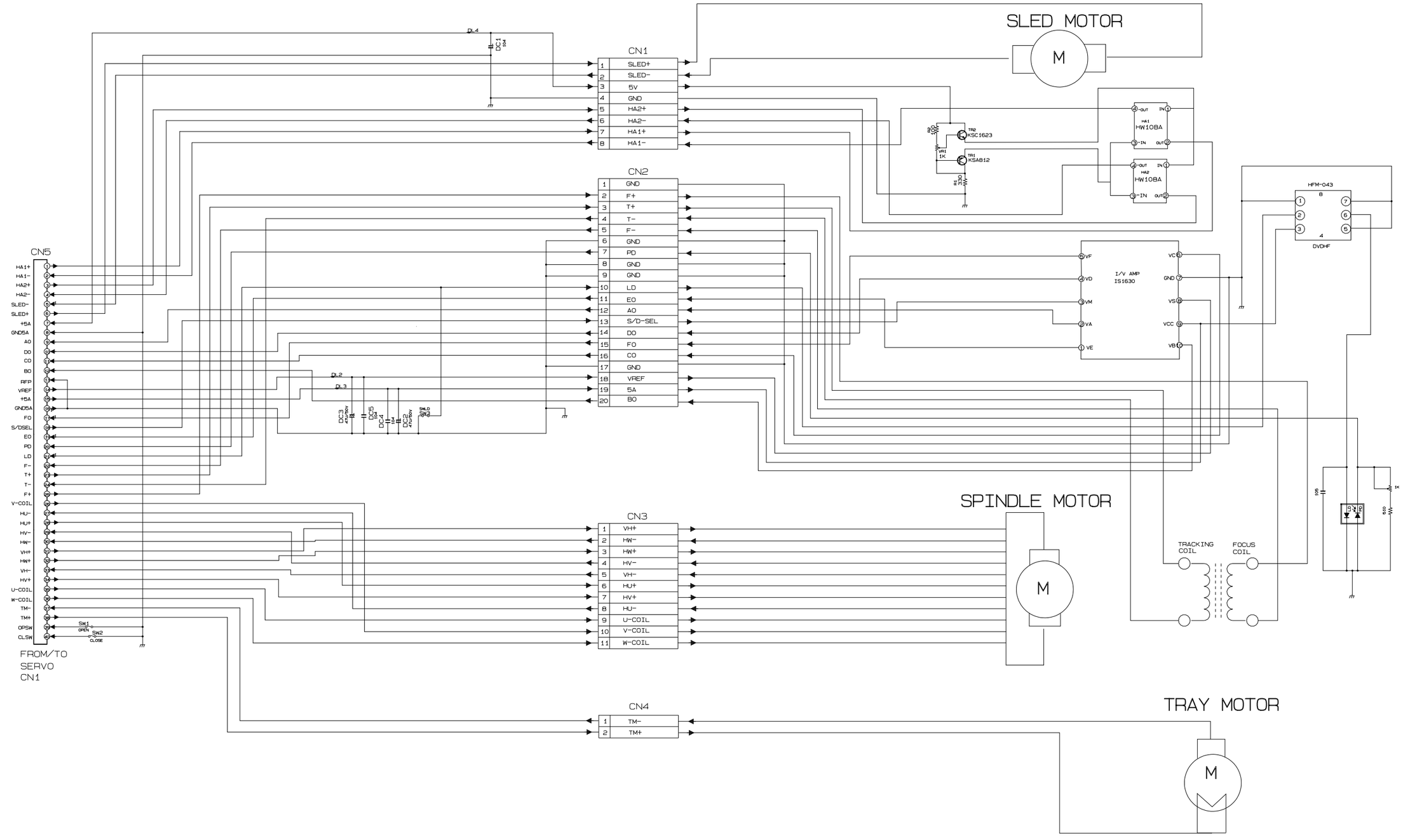
# 11-9 DATA PROCESSOR



# 11-10 A/V DECORDER



# 11-11 KARAOKE(DVD878KV)



## 11-12 PICK-UP/DECK